STIC Search Report
Biotech-Chem Library

STIC Database Tracking Number: 113842

TO:	From:
Minh-Tam Davis Location: Rem 3a24 / 3c18 Tuesday, February 10, 2004 Art Unit: 1642 Phone: 272-0830 Serial Number: 10 / 032159	Jan Delaval Location: Biotech-Chem Library Rem 1A51 Phone: 272-2504 jan.delaval@uspto.gov

Search Notes

Priority date 12/2000

sira
Search and Information Resources Administration

STIC-Biotech/ChemLib 113842

From: Chan, Christina
Sent: Monday, February 09, 2004 10:11 AM
To: Davis, Minh-Tam; STIC-Biotech/ChemLib
Subject: RE: Rush search request for 10/032159

Please rush. Thanks Chris

Chris Chan
TC 1600 New Hire Training Coordinator and SPE 1644
(571)-272-0841
Remsen, 3E89

-----Original Message-----
From: Davis, Minh-Tam
Sent: Sunday, February 08, 2004 11:02 AM
To: Chan, Christina
Subject: Rush search request for 10/032159

Please search in commercial database, issued patent files, PGPUB and interference:
SEQ ID NO:17, and 18, with and without size limitation to the size of the corresponding sequence.
Thank you.
MINH TAM DAVIS
ART UNIT 1642,
RESEM, ROOM 3A24, mb 3c18
272-0830

Searcher: Chan
Phone: 272504
Location:
Date Picked Up: 2/9
Date Completed: 2/10
Searcher Prep/Review:
Clerical: 10
Online time: 10

TYPE OF SEARCH:
NA Sequences: ✓
AA Sequences:
Structures:
Bibliographic:
Litigation:
Full text:
Patent Family:
Other:

VENDOR/COST (where applic.)
STN:
DIALOG:
Questel/Orbit:
DRLink:
Lexis/Nexis:
Sequence Sys.: ✓
WWW/Internet:
Other (specify):

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PF   01-DEC-2000; 2000WO-US32716.
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PR   03-DEC-1999;   99US-0168780.
PR   18-FEB-2000; 2000US-0507533.
PR   25-FEB-2000; 2000US-0513904.
PR   10-OCT-2000; 2000US-0685791.
XX
PA   (MILL-) MILLENNIUM PHARM INC.
XX
PI   Bertin J;
XX
DR   WPI; 2001-367809/38.
DR   N-PSDB; AAS05389.
XX
PT   Novel caspase recruitment domain (CARD) proteins, CARD-9, CARD-10,
PT   CARD-11, useful as targets for therapy, as immunogens, and in screening
PT   and detection assays -
XX
PS   Claim 9; Fig 14A-14C; 145pp; English.
XX
CC   The present sequence represents novel human caspase recruitment
CC   domain, CARD-11. The polynucleotide encoding this sequence was
CC   isolated from a human T-cell cDNA library. Also described are
CC   novel human sequences for CARD-9 and CARD-10 (AAU01205, AAU01206)
CC   and rat CARD-9 (AAU01204). CARD-9, CARD-10 and CARD-11 interact
CC   with Bcl-10 which is thought to activate nuclear factor (NF)-kappaB
CC   and apoptosis. The sequences of the invention can be used for
CC   treating a disorder associated with abnormal levels of apoptosis by
CC   modulating the expression or activity of CARD-9, CARD-10, or CARD-11.
CC   They can be used for the treatment of hyperproliferative disorders
CC   (e.g. cancer), autoimmune disorders (e.g. systemic lupus erythematosus),
CC   neurological disorders (e.g. Alzheimer's disease), inflammatory disorders
CC   (e.g. Crohn's disease), and viral infection (e.g. HIV). The CARD
CC   polypeptide, polynucleotide and an antibody which selectively binds to
CC   CARD can be used in screening and detection assays (e.g. chromosomal
CC   mapping, tissue typing), predictive medicine (prognostic assays,
CC   monitoring clinical trials, and therapy (treatment and prophylaxis). The
CC   CARD polypeptide may be used to screen for drugs that bind to and/or
CC   modulate it. CARD sequences are potential targets for regulating
CC   inflammation, cancer, NF-kappaB signalling, stress-related response and
CC   apoptosis in human disease. A host cell containing a polynucleotide
CC   encoding CARD can be used to create transgenic animals.
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SQ   Sequence   1147 AA;

  Query Match             53.1%;  Score 257;  DB 22;  Length 1147;
  Best Local Similarity   53.3%;  Pred. No. 3.4e-25;
  Matches   48;  Conservative   20;  Mismatches   22;  Indels    0;  Gaps    0;

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DE   Human CARD-11.
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KW   Rat; human; caspase recruitment domain; CARD-9; CARD-10;
KW   CARD-11; apoptosis; inflammation; cell growth; cell death;
KW   lymphocyte activation; cancer; melanoma; autoimmune disease;
KW   arthritis; neurological disorder; Alzheimer's disease.
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OS   Homo sapiens.
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PN   WO200270652-A2.
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PD   12-SEP-2002.
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PF   28-FEB-2002; 2002WO-US06147.
XX
PR   02-MAR-2001; 2001US-0798412.
XX
PA   (MILL-) MILLENNIUM PHARM INC.
XX
PI   Bertin J;
XX
DR   WPI; 2002-698749/75.
DR   N-PSDB; ABA00334.
XX
PT   CARD-9, CARD-10 or CARD-11 polypeptides and polynucleotides, useful for
PT   treating disorders associated with inappropriate apoptosis or
PT   lymphocyte activation, e.g. cancer -
XX
PS   Disclosure; Fig 14; 151pp; English.
XX
CC   This sequence represents human caspase recruitment domain (CARD)-11.
CC   CARD proteins play roles in apoptotic and inflammatory signalling
CC   pathways. CARD-9, -10 and -11 participate in the network of
CC   interactions that modulate caspase activity. They are thought to be
CC   useful as modulating agents for regulating a variety of cellular
CC   processes including cell growth and cell death. CARD proteins and
CC   nucleic acids are useful for treating a disorder associated with
CC   inappropriate apoptosis or lymphocyte activation or for diagnosing
CC   subjects having or that are at risk of developing a disorder associated
CC   with aberrant CARD-9, CARD-10 or CARD-11 expression or activity, such
CC   as cancer e.g. melanoma, autoimmune disorders e.g. arthritis, or
CC   neurological disorders e.g. Alzheimer's disease.
XX
SQ   Sequence   1147 AA;

  Query Match             53.1%;  Score 257;  DB 23;  Length 1147;
  Best Local Similarity   53.3%;  Pred. No. 3.4e-25;
  Matches   48;  Conservative   20;  Mismatches   22;  Indels    0;  Gaps    0;

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Db         12 EDALWENVECNRHMLSRYINPAKLTPYLRQCKVIDEQDEDEVLNAPMLPSKINRAGRLLD 71

Qy         61 LLKTRGKNGAIAFLESLKFHNPDVYTLVTG 90
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Db         72 ILHTKGQRGYVVFLESLEFYYPELYKLVTG 101


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ID   ABG76061 standard; protein; 1247 AA.
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AC   ABG76061;
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XX
DE   Human caspase recruitment domain containing protein, CARD-11X.
XX
KW   CARD; caspase recruitment domain; apoptosis; cell adhesion; inflammation;
KW   cytokine receptor signalling; cancer; glioma; carcinoma; adenocarcinoma;
KW   CARD-containing polypeptide associated disorder; sarcoma; melanoma;
KW   hamartoma; leukaemia; lymphoma; keratinocyte hyperplasia; neoplasia;
KW   keloid; benign prostatic hypertrophy; inflammatory hyperplasia; fibrosis;
KW   restenosis; allergy; arthritis; lupus; Sjogren's syndrome; sepsis; human;
KW   Crohn's disease; ulcerative colitis; graft versus host disease; stroke;
KW   abnormal cell death disease; myocardial infarction; heart failure;
KW   neurodegenerative disease; Parkinson's disease; Alzheimer's disease; HIV;
KW   CARD-11X; caspase activator; caspase inhibitor.
XX
OS   Homo sapiens.
XX
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FT                   claimed in claim 12"
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FT                   Specifically claimed in claim 12"
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PF   19-DEC-2001; 2001US-0032159.
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PR   21-DEC-2000; 2000US-257457P.
XX
PA   (PAWL/) PAWLOWSKI K.
PA   (REED/) REED J C.
PA   (GODZ/) GODZIK A.
XX
PI   Pawlowski K,  Reed JC,  Godzik A;
XX
DR   WPI; 2003-288137/28.
DR   N-PSDB; ABX11430.
XX
PT   New isolated CARD-containing nucleic acids, useful for the diagnosis
PT   and treatment of disorders with aberrant expression or activity of the
PT   CARD-containing polypeptide, such as cancer, stroke, arthritis, heart
PT   failure and AIDS -
XX
PS   Claim 11; Fig 2; 34pp; English.
XX
CC   The invention relates to an isolated nucleic acid molecule encoding a
CC   caspase recruitment domain (CARD) containing polypeptide. CARD containing
CC   polypeptides are involved in apoptosis (as caspase activators and caspase
CC   inhibitors), cell adhesion, inflammation and cytokine receptor
CC   signalling. The methods and compositions of the present invention are
CC   useful for the diagnosis and treatment of disorders associated with the
CC   aberrant expression or activity of the CARD containing polypeptide such
CC   as cancer, glioma, carcinoma, adenocarcinoma, sarcoma, melanoma, keloid,
CC   hamartoma, leukaemia, lymphoma, keratinocyte hyperplasia, neoplasia,
CC   benign prostatic hypertrophy, inflammatory hyperplasia, fibrosis,
CC   restenosis, allergies, inflammatory diseases such as arthritis, lupus,
CC   Sjogren's syndrome, Crohn's disease, ulcerative colitis, graft versus
CC   host disease, sepsis, abnormal cell death diseases such as stroke,
CC   myocardial infarction, heart failure, neurodegenerative diseases like
CC   Parkinson's disease and Alzheimer's disease, and HIV infection. The
CC   present sequence represents the amino acid sequence of the caspase
CC   recruitment domain containing protein, CARD-11X.
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SQ   Sequence   1247 AA;

  Query Match             53.1%;  Score 257;  DB 24;  Length 1247;
  Best Local Similarity   53.3%;  Pred. No. 3.8e-25;
  Matches   48;  Conservative   20;  Mismatches   22;  Indels    0;  Gaps    0;

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              :| |:|: | : |||||:|: |::| ||||
Db         72 ILHTKGQRGYVVFLESLEFYYPELYKLVTG 101


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ID   AAU01206 standard; Protein; 1032 AA.
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AC   AAU01206;
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XX
DE   Human caspase recruitment domain, CARD-10 polypeptide.
XX
KW   Human; caspase recruitment domain; CARD-10; Bcl-10; NF-kappaB;
KW   apoptosis; hyperproliferative disorder; autoimmune; neurological;
KW   inflammatory disorder; viral infection; stress-related response.
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OS   Homo sapiens.
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PN   WO200140468-A2.
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PD   07-JUN-2001.
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PF   01-DEC-2000; 2000WO-US32716.
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PR   03-DEC-1999;   99US-0168780.
PR   18-FEB-2000; 2000US-0507533.
PR   25-FEB-2000; 2000US-0513904.
PR   10-OCT-2000; 2000US-0685791.
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PA   (MILL-) MILLENNIUM PHARM INC.
XX
PI   Bertin J;
XX
DR   WPI; 2001-367809/38.
DR   N-PSDB; AAS05388.
XX
PT   Novel caspase recruitment domain (CARD) proteins, CARD-9, CARD-10,
PT   CARD-11, useful as targets for therapy, as immunogens, and in screening
PT   and detection assays -
XX
PS   Claim 9; Fig 10A-10C; 145pp; English.
XX
CC   The present sequence represents novel human caspase recruitment
CC   domain, CARD-10. The polynucleotide encoding this sequence was isolated
CC   from a human skin cDNA library. Also described are novel human sequences
CC   for CARD-9 and CARD-11 (AAU01205, AAU01207) and rat CARD-9 (AAU01204).
CC   CARD-9, CARD-10 and CARD-11 interact with Bcl-10 which is thought to
CC   activate nuclear factor (NF)-kappaB and apoptosis. The sequences of the
CC   invention can be used for treating a disorder associated with abnormal
CC   levels of apoptosis by modulating the expression or activity of CARD-9,
CC   CARD-10, or CARD-11. They can be used for the treatment of
CC   hyperproliferative disorders (e.g. cancer), autoimmune disorders (e.g.
CC   systemic lupus erythematosus), neurological disorders (e.g.
CC   Alzheimer's disease), inflammatory disorders (e.g. Crohn's disease),
CC   and viral infection (e.g. HIV). The CARD polypeptide, polynucleotide
CC   and an antibody which selectively binds to CARD can be used in screening
CC   and detection assays (e.g. chromosomal mapping, tissue typing),
CC   predictive medicine (prognostic assays, monitoring clinical trials, and
CC   therapy (treatment and prophylaxis). The CARD polypeptide may be used
CC   to screen for drugs that bind to and/or modulate it. CARD sequences are
CC   potential targets for regulating inflammation, cancer, NF-kappaB
CC   signalling, stress-related response and apoptosis in human disease. A
CC   host cell containing a polynucleotide encoding CARD can be used to
CC   create transgenic animals.
XX
SQ   Sequence   1032 AA;

  Query Match             49.0%;  Score 237;  DB 22;  Length 1032;
  Best Local Similarity   50.0%;  Pred. No. 1.5e-22;
  Matches   45;  Conservative   19;  Mismatches   26;  Indels    0;  Gaps    0;

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RESULT 8
AAG79554
ID   AAG79554 standard; Protein; 1032 AA.
XX
AC   AAG79554;
XX
DT   09-DEC-2002  (first entry)
XX
DE   Human CARD-10.
XX
KW   Rat; human; caspase recruitment domain; CARD-9; CARD-10;
KW   CARD-11; apoptosis; inflammation; cell growth; cell death;
KW   lymphocyte activation; cancer; melanoma; autoimmune disease;
KW   arthritis; neurological disorder; Alzheimer's disease.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Domain          23..123
FT                   /label= CARD_domain
FT   Domain          147..457
FT                   /label= Coiled-coil_domain
FT   Domain          704..772
FT                   /label= SH3_domain
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XX
PD   12-SEP-2002.
XX
PF   28-FEB-2002; 2002WO-US06147.
XX
PR   02-MAR-2001; 2001US-0798412.
XX
PA   (MILL-) MILLENNIUM PHARM INC.
XX
PI   Bertin J;
XX
DR   WPI; 2002-698749/75.
DR   N-PSDB; ABA00333.
XX
PT   CARD-9, CARD-10 or CARD-11 polypeptides and polynucleotides, useful for
PT   treating disorders associated with inappropriate apoptosis or
PT   lymphocyte activation, e.g. cancer  -
XX
PS   Claim 14; Fig 10; 151pp; English.
XX
CC   This sequence represents human caspase recruitment domain (CARD)-10.
CC   CARD proteins play roles in apoptotic and inflammatory signalling
CC   pathways.  CARD-9, -10 and -11 participate in the network of
CC   interactions that modulate caspase activity.  They are thought to be
CC   useful as modulating agents for regulating a variety of cellular
CC   processes including cell growth and cell death.  CARD proteins and
CC   nucleic acids are useful for treating a disorder associated with
CC   inappropriate apoptosis or lymphocyte activation or for diagnosing
CC   subjects having or that are at risk of developing a disorder associated
CC   with aberrant CARD-9, CARD-10 or CARD-11 expression or activity, such
CC   as cancer e.g. melanoma, autoimmune disorders e.g. arthritis, or
CC   neurological disorders e.g. Alzheimer's disease.
XX
SQ   Sequence   1032 AA;

  Query Match             49.0%;  Score 237;  DB 23;  Length 1032;
  Best Local Similarity   50.0%;  Pred. No. 1.5e-22;
  Matches   45;  Conservative   19;  Mismatches   26;  Indels    0;  Gaps    0;

Qy          1 EETLWEMMESHRHRIVRCICPSRLTPYLRQAKVLCQLDEEEVLHSPRLTNSAMRAGHLLD 60
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Db         24 EDALWERIEGVRHRLARALNPAKLTPYLRQCRVIDEQDEEEVLSTYRFPCRVNRTGRLMD 83

Qy         61 LLKTRGKNGAIAFLESLKFHNPDVYTLVTG 90
              :|: ||| |  ||||:|:|: |: :||:||
Db         84 ILRCRGKRGYEAFLEALEFYYPEHFTLLTG 113


RESULT 9
AAU73247
ID   AAU73247 standard; Protein; 1032 AA.
XX
AC   AAU73247;
XX
DT   12-MAR-2002  (first entry)
XX
DE   Human plakoglobin interacting protein #3.
XX
KW   Human; plakoglobin; cytostatic; osteopathic; dermatological; cardiant;
KW   plakoglobin related disease; skin carcinoma; acantholytic disease;
KW   basal cell carcinoma; squamous cell carcinoma; Naxos disease;
KW   extramammary Paget's disease; heart disease; skin blistering;
KW   subcorneal acantholysis; Grover's disease; Hailey-Hailey's disease;
```

```
KW   Darier's disease; ectodermal dysplasia; skin fragility syndrome.
XX
OS   Homo sapiens.
XX
PN   WO200185933-A2.
XX
PD   15-NOV-2001.
XX
PF   02-MAY-2001; 2001WO-EP04872.
XX
PR   09-MAY-2000; 2000EP-0201668.
XX
PA   (VLAA-) VLAAMS INTERUNIVERSITAIR INST BIOTECHNOG.
XX
PI   Van Roy F,  Bonne S,  Vanlandschoot A;
XX
DR   WPI; 2002-062246/08.
DR   N-PSDB; AAS98203.
XX
PT   New polypeptide,  useful for treating skin carcinoma or acantholytic
PT   disease such as Grover's and Darier's disease, comprises a protein
PT   interacting with human plakoglobin and involved in transduction of
PT   plakoglobin related signal to nucleus -
XX
PS   Claim 1; Figure 3; 98pp; English.
XX
CC   The invention relates to an isolated plakoglobin interacting polypeptide
CC   (I). (I) is useful as a medicament and in the manufacture of a
CC   medicament for treating plakoglobin related diseases, such as skin
CC   carcinoma or an acantholytic disease, and to screen compounds that
CC   interfere with the interaction of the polypeptide with plakoglobin
CC   The plakoglobin related diseases include basal cell carcinoma, squamous
CC   cell carcinoma, extramammary Paget's disease, Naxos disease, heart
CC   diseases, skin blistering and acantholytic diseases such as subcorneal
CC   acantholysis, Grover's disease, Hailey-Hailey's disease or Darier's
CC   disease, and ectodermal dysplasia/skin fragility syndrome. AAU73245-
CC   AAU73254 represent novel human plakoglobin interacting protein
CC   amino acid sequences and related sequences of the invention.
XX
SQ   Sequence   1032 AA;

  Query Match             49.0%;  Score 237;  DB 23;  Length 1032;
  Best Local Similarity   50.0%;  Pred. No. 1.5e-22;
  Matches   45;  Conservative   19;  Mismatches   26;  Indels    0;  Gaps    0;

Qy          1 EETLWEMMESHRHRIVRCICPSRLTPYLRQAKVLCQLDEEEVLHSPRLTNSAMRAGHLLD 60
              |: ||| :|  |||: | : |::|||||| :|: : |||||| : |      | | |:|
Db         24 EDALWERIEGVRHRLARALNPAKLTPYLRQCRVIDEQDEEEVLSTYRFPCRVNRTGRLMD 83

Qy         61 LLKTRGKNGAIAFLESLKFHNPDVYTLVTG 90
              :|: ||| |  ||||:|:|: |: :||:||
Db         84 ILRCRGKRGYEAFLEALEFYYPEHFTLLTG 113


RESULT 10
AAU01204
ID   AAU01204 standard; Protein; 536 AA.
XX
AC   AAU01204;
XX
DT   12-SEP-2001  (first entry)
XX
DE   Rat caspase recruitment domain, CARD-9 polypeptide.
XX
KW   Rat; caspase recruitment domain; CARD-9; Bcl-10; NF-kappaB;
KW   apoptosis; hyperproliferative disorder; autoimmune; neurological;
KW   inflammatory disorder; viral infection; stress-related response.
XX
OS   Rattus sp.
XX
FH   Key             Location/Qualifiers
FT   Modified-site   2..5
FT                   /note= "Casein kinase II phosphorylation site"
FT   Domain          7..98
FT                   /note= "CARD domain"
FT   Modified-site   12..15
FT                   /note= "Casein kinase II phosphorylation site"
FT   Modified-site   16..18
FT                   /note= "Protein kinase C phosphorylation site"
FT   Modified-site   23..26
FT                   /note= "Casein kinase II phosphorylation site"
FT   Modified-site   92..95
FT                   /note= "cAMP- and cGMP-dependent protein kinase
FT                        phosphorylation site"
FT   Modified-site   95..97
FT                   /note= "Protein kinase C phosphorylation site"
FT   Modified-site   95..98
FT                   /note= "Casein kinase II phosphorylation site"
FT   Modified-site   138..140
FT                   /note= "Protein kinase C phosphorylation site"
FT   Modified-site   138..141
FT                   /note= "Casein kinase II phosphorylation site"
FT   Domain          140..416
FT                   /note= "Coiled coil domain"
FT   Modified-site   171..174
FT                   /note= "Casein kinase II phosphorylation site"
FT   Modified-site   176..183
FT                   /note= "Tyrosine kinase phosphorylation site"
FT   Region          197..213
FT                   /note= "Indole-3-glycerol phosphate synthase
FT                        homology region"
FT   Modified-site   228..231
FT                   /note= "cAMP- and cGMP-dependent protein kinase
FT                        phosphorylation site"
FT   Modified-site   231..233
FT                   /note= "Protein kinase C phosphorylation site"
FT   Modified-site   267..270
FT                   /note= "Casein kinase II phosphorylation site"
FT   Region          285..338
FT                   /note= "Cysteine rich repeat homology region"
FT   Modified-site   303..305
FT                   /note= "Protein kinase C phosphorylation site"
FT   Modified-site   362..364
FT                   /note= "Protein kinase C phosphorylation site"
FT   Modified-site   362..365
FT                   /note= "Casein kinase II phosphorylation site"
FT   Modified-site   374..377
FT                   /note= "Casein kinase II phosphorylation site"
FT   Modified-site   425..428
FT                   /note= "Casein kinase II phosphorylation site"
FT   Modified-site   431..433
FT                   /note= "Protein kinase C phosphorylation site"
FT   Modified-site   451..453
FT                   /note= "Protein kinase C phosphorylation site"
FT   Modified-site   483..486
FT                   /note= "Casein kinase II phosphorylation site"
FT   Modified-site   514..516
FT                   /note= "Protein kinase C phosphorylation site"
FT   Modified-site   523..528
FT                   /note= "N-myristoylation site"
FT   Modified-site   524..527
FT                   /note= "N-glycosylation site"
FT   Modified-site   526..529
FT                   /note= "Casein kinase II phosphorylation site"
FT   Modified-site   531..534
FT                   /note= "Casein kinase II phosphorylation site"
XX
PN   WO200140468-A2.
XX
PD   07-JUN-2001.
XX
PF   01-DEC-2000; 2000WO-US32716.
XX
PR   03-DEC-1999;   99US-0168780.
PR   18-FEB-2000; 2000US-0507533.
PR   25-FEB-2000; 2000US-0513904.
```

PR 10-OCT-2000; 2000US-0685791.
XX
PA (MILL-) MILLENNIUM PHARM INC.
XX
PI Bertin J;
XX
DR WPI; 2001-367809/38.
DR N-PSDB; AAS05386.
XX
PT Novel caspase recruitment domain (CARD) proteins, CARD-9, CARD-10,
PT CARD-11, useful as targets for therapy, as immunogens, and in screening
PT and detection assays -
XX
PS Claim 9; Fig 1A-1B; 145pp; English.
XX
CC The present sequence represents novel rat caspase recruitment
CC domain, CARD-9. The polynucleotide encoding this sequence was
CC isolated from a rat neuronal cDNA library. Also described are novel
CC human sequences for CARD-9, CARD-10 and CARD-11 (AAU01205-AAU01207).
CC CARD-9, CARD-10 and CARD-11 interact with Bcl-10 which is thought
CC to activate nuclear factor (NF)-kappaB and apoptosis. The sequences
CC of the invention can be used for treating a disorder associated
CC with abnormal levels of apoptosis by modulating the expression
CC or activity of CARD-9, CARD-10, or CARD-11. They can be used for
CC the treatment of hyperproliferative disorders (e.g. cancer),
CC autoimmune disorders (e.g. systemic lupus erythematosus), neurological
CC disorders (e.g. Alzheimer's disease), inflammatory disorders (e.g.
CC Crohn's disease), and viral infection (e.g. HIV). The CARD polypeptide,
CC polynucleotide and an antibody which selectively binds to CARD can be
CC used in screening and detection assays (e.g. chromosomal mapping, tissue
CC typing), predictive medicine (prognostic assays, monitoring clinical
CC trials, and therapy (treatment and prophylaxis). The CARD polypeptide may
CC be used to screen for drugs that bind to and/or modulate it. CARD
CC sequences are potential targets for regulating inflammation, cancer,
CC NF-kappaB signalling, stress-related response and apoptosis in human
CC disease. A host cell containing a polynucleotide encoding CARD can be
CC used to create transgenic animals.
XX
SQ Sequence 536 AA;

Query Match 42.8%; Score 207; DB 22; Length 536;
Best Local Similarity 46.7%; Pred. No. 7.2e-19;
Matches 42; Conservative 15; Mismatches 33; Indels 0; Gaps 0;

```
Qy          1 EETLWEMMESHRHRIVRCICPSRLTPYLRQAKVLCQLDEEEVLHSPRLTNSAMRAGHLLD 60
              ::  |  :|| | :::  | |||:|||||| |||   |||:||  | |     : | |||
Db          7 DDECWSALESFRVKLISVIDPSRITPYLRQCKVLNPDDEEQVLSDPNLVIRKRKVGVLLD 66

Qy         61 LLKTRGKNGAIAFLESLKFHNPDVYTLVTG 90
              :|:  |  | :||||||: : | :|  |||
Db         67 ILQRTGHKGYVAFLESLELYYPQLYRKVTG 96
```

RESULT 11
AAG79552
ID AAG79552 standard; Protein; 536 AA.
XX
AC AAG79552;
XX
DT 09-DEC-2002 (first entry)
XX
DE Rat CARD-9.
XX
KW Rat; human; caspase recruitment domain; CARD-9; CARD-10;
KW CARD-11; apoptosis; inflammation; cell growth; cell death;
KW lymphocyte activation; cancer; melanoma; autoimmune disease;
KW arthritis; neurological disorder; Alzheimer's disease.
XX
OS Rattus rattus.
XX
FH Key Location/Qualifiers
FT Domain 7..98
FT /label= CARD_domain
FT Domain 140..416
FT /label= Coiled-coil_domain
FT Domain 197..213
FT /label= Indole-3-glycerol_phosphate_synthase
FT Region 285..338
FT /label= Cysteine_rich_repeat_region
XX
PN WO200270652-A2.
XX
PD 12-SEP-2002.
XX
PF 28-FEB-2002; 2002WO-US06147.
XX
PR 02-MAR-2001; 2001US-0798412.
XX
PA (MILL-) MILLENNIUM PHARM INC.
XX
PI Bertin J;
XX
DR WPI; 2002-698749/75.
DR N-PSDB; ABA00331.
XX
PT CARD-9, CARD-10 or CARD-11 polypeptides and polynucleotides, useful for
PT treating disorders associated with inappropriate apoptosis or
PT lymphocyte activation, e.g. cancer -
XX
PS Disclosure; Fig 1; 151pp; English.
XX
CC This sequence represents rat caspase recruitment domain (CARD)-9.
CC CARD proteins play roles in apoptotic and inflammatory signalling
CC pathways. CARD-9, -10 and -11 participate in the network of
CC interactions that modulate caspase activity. They are thought to be
CC useful as modulating agents for regulating a variety of cellular
CC processes including cell growth and cell death. CARD proteins and
CC nucleic acids are useful for treating a disorder associated with
CC inappropriate apoptosis or lymphocyte activation or for diagnosing
CC subjects having or that are at risk of developing a disorder associated
CC with aberrant CARD-9, CARD-10 or CARD-11 expression or activity, such
CC as cancer e.g. melanoma, autoimmune disorders e.g. arthritis, or
CC neurological disorders e.g. Alzheimer's disease.
XX
SQ Sequence 536 AA;

Query Match 42.8%; Score 207; DB 23; Length 536;
Best Local Similarity 46.7%; Pred. No. 7.2e-19;
Matches 42; Conservative 15; Mismatches 33; Indels 0; Gaps 0;

```
Qy          1 EETLWEMMESHRHRIVRCICPSRLTPYLRQAKVLCQLDEEEVLHSPRLTNSAMRAGHLLD 60
              ::  |  :|| | :::  | |||:|||||| |||   |||:||  | |     : | |||
Db          7 DDECWSALESFRVKLISVIDPSRITPYLRQCKVLNPDDEEQVLSDPNLVIRKRKVGVLLD 66

Qy         61 LLKTRGKNGAIAFLESLKFHNPDVYTLVTG 90
              :|:  |  | :||||||: : | :|  |||
Db         67 ILQRTGHKGYVAFLESLELYYPQLYRKVTG 96
```

RESULT 12
AAB41067
ID AAB41067 standard; Protein; 174 AA.
XX
AC AAB41067;
XX
DT 08-FEB-2001 (first entry)
XX
DE Human ORFX ORF831 polypeptide sequence SEQ ID NO:1662.
XX
KW Human; open reading frame; ORFX; detection; cytostatic; hepatotropic;
KW vulnerary; antipsoriatic; antiparkinsonian; nootropic; neuroprotective;
KW anticonvulsant; osteopathic; antiarthritic; immunosuppressant; cardiant;
KW immunostimulant; thrombolytic; coagulant; vasotropic; antidiabetic;
KW hypotensive; dermatological; immunosuppressive; antiinflammatory;
KW antiviral; antibacterial; antifungal; antirheumatic; antithyroid;
KW antianaemic; gene therapy; cancer; proliferative disorder; hypertension;

KW neurodegenerative disorder; osteoarthritis; graft vs host disease;
KW cardiovascular disease; diabetes mellitus; hypothyroidism; SCID; AIDS;
KW cholesterol ester storage; systemic lupus erythematosus; infection;
KW severe combined immunodeficiency; malaria; autoimmune disorder; asthma;
KW allergy; aplastic anaemia; nocturnal haemoglobinuria; burn; wound;
KW bone damage; cartilage damage; antiinflammatory disease; coagulation;
KW thrombosis; contraceptive.
XX
OS Homo sapiens.
XX
PN WO200058473-A2.
XX
PD 05-OCT-2000.
XX
PF 31-MAR-2000; 2000WO-US08621.
XX
PR 31-MAR-1999; 99US-0127607.
PR 02-APR-1999; 99US-0127636.
PR 05-APR-1999; 99US-0127728.
PR 30-MAR-2000; 2000US-0540763.
XX
PA (CURA-) CURAGEN CORP.
XX
PI Shimkets RA, Leach M;
XX
DR WPI; 2000-602362/57.
DR N-PSDB; AAC75276.
XX
PT Novel nucleic acids and peptides derived from open reading frame X,
PT useful for treating e.g. cancers, proliferative disorders,
PT neurodegenerative disorders and cardiovascular disease -
XX
PS Claim 11; Page 1326; 5507pp; English.
XX
CC AAC74446 to AAC77606 encode the proteins given in AAB40237 to AAB43397,
CC which represent the human ORFX open reading frames 1 to 3161. The ORFX
CC sequences have activities such as: cytostatic; hepatotropic; vulnerary;
CC antipsoriatic; antiparkinsonian; nootropic; neuroprotective;
CC osteopathic; anticonvulsant; antiarthritic; immunosuppressant;
CC immunostimulant; cardiant; thrombolytic; coagulant; vasotropic;
CC antidiabetic; hypotensive; dermatological; immunosuppressive;
CC antiinflammatory; antibacterial; antiviral; antifungal; antirheumatic;
CC antithyroid; and antianaemic. The sequences can be used for determining
CC the presence of or predisposition to, or preventing or treating
CC pathological conditions associated with an ORFX-associated disorder. The
CC nucleic acids can be used to express ORFX proteins in gene therapy
CC vectors. The proteins and nucleic acids may be used to treat cancers,
CC proliferative disorders, neurodegenerative disorders, osteoarthritis,
CC graft vs host disease, cardiovascular disease, diabetes mellitus,
CC hypertension, hypothyroidism, cholesterol ester storage, systemic lupus
CC erythematosus, severe combined immunodeficiency (SCID), AIDS, viral,
CC bacterial or fungal infection, malaria, autoimmune disorders, asthma,
CC allergies, aplastic anaemia, burns, wounds, bone and cartilage damage,
CC nocturnal haemoglobinuria, antiinflammatory disease; to enhance
CC coagulation; to inhibit thrombosis; and as a contraceptive.
XX
SQ Sequence 174 AA;

Query Match 41.1%; Score 199; DB 21; Length 174;
Best Local Similarity 45.6%; Pred. No. 1.9e-18;
Matches 41; Conservative 14; Mismatches 35; Indels 0; Gaps 0;

Qy 1 EETLWEMMESHRHRIVRCICPSRLTPYLRQAKVLCQLDEEEVLHSPRLTNSAMRAGHLLD 60
Db 72 DDECWNVLEGFRVTLTSVIDPSRITPYLRQCKVLNPDDEEQVLSDPNLVIRKRKVGVLLD 131

Qy 61 LLKTRGKNGAIAFLESLKFHNPDVYTLVTG 90
Db 132 ILQRTGHKGYVAFLESLELYYPQLYKKVTG 161

RESULT 13
ABP10782

ID ABP10782 standard; Protein; 174 AA.
XX
AC ABP10782;
XX
DT 24-JUN-2002 (first entry)
XX
DE Human ORFX protein sequence SEQ ID NO:21546.
XX
KW Human; open reading frame; ORFX; gene therapy; cancer; cirrhosis;
KW hyperproliferative disorder; psoriasis; benign tumour; haemorrhage;
KW degenerative disorder; osteoarthritis; neurodegenerative disorder;
KW cardiovascular disease; diabetes mellitus; systemic lupus erythematosus;
KW hypertension; hypothyroidism; cholesterol ester storage disease;
KW immune deficiency; immune disorder; infectious disease;
KW autoimmune disorder; rheumatoid arthritis; autoimmune thyroiditis;
KW myasthenia gravis.
XX
OS Homo sapiens.
XX
PN WO200192523-A2.
XX
PD 06-DEC-2001.
XX
PF 29-MAY-2001; 2001WO-US10836.
XX
PR 30-MAY-2000; 2000US-206132P.
PR 29-AUG-2000; 2000US-228716P.
XX
PA (CURA-) CURAGEN CORP.
XX
PI Shimkets RA, Leach MD;
XX
DR WPI; 2002-106308/14.
DR N-PSDB; ABN26534.
XX
PT Novel human polypeptides and polynucleotides useful for diagnosing,
PT preventing and treating cardiovascular disease, neurodegenerative,
PT hyperproliferative disorders and autoimmune disorders -
XX
PS Disclosure; SEQ ID 21546; 1037pp; English.
XX
CC The present invention describes substantially purified human proteins
CC (referred to as open reading frame, ORFX, where X is 1-11491 (see Table 1
CC in the specification). ABN15762 to ABN27252 encode the human ORFX
CC proteins given in ABP00010 to ABP11500. ORFX proteins are useful for
CC treating or preventing a pathology associated with an ORFX-associated
CC disorder in humans, and in the manufacture of a medicament for treating a
CC syndrome associated with ORFX-associated disorder. ORFX polynucleotide
CC sequences can be used in gene therapy. ORFX sequences can be used in the
CC treatment of cancer, hyperproliferative disorders, cirrhosis of liver,
CC psoriasis, benign tumours, keloid, degenerative disorders, haemorrhage,
CC osteoarthritis, neurodegenerative disorders, disorders related to organ
CC transplantation, cardiovascular diseases, diabetes mellitus, systemic
CC lupus erythematosus, hypertension, hypothyroidism, cholesterol ester
CC storage disease, various immune deficiencies and disorders, infectious
CC diseases, autoimmune disorders such as multiple sclerosis, rheumatoid
CC arthritis, autoimmune thyroiditis, myasthenia gravis, graft-versus-host
CC disease and autoimmune inflammatory eye disease. ORFX proteins are also
CC useful for treating burns, incisions, ulcers, for treating osteoporosis,
CC bone degenerative disorders, or periodontal disease, and for gut
CC protection or regeneration and treatment of lung or liver fibrosis,
CC reperfusion injury in various tissues and conditions resulting from
CC systemic cytokine damage.
CC N.B. The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 174 AA;

Query Match 41.1%; Score 199; DB 23; Length 174;
Best Local Similarity 45.6%; Pred. No. 1.9e-18;
Matches 41; Conservative 14; Mismatches 35; Indels 0; Gaps 0;

```
Qy          1 EETLWEMMESHRHRIVRCICPSRLTPYLRQAKVLCQLDEEEVLHSPRLTNSAMRAGHLLD 60
              ::  | ::|  |  :  | |||:|||||| |||  |||:||  | |     : | |||
Db         72 DDECWNVLEGFRVTLTSVIDPSRITPYLRQCKVLNPDDEEQVLSDPNLVIRKRKVGVLLD 131

Qy         61 LLKTRGKNGAIAFLESLKFHNPDVYTLVTG 90
              :|:  |  | :||||||: : | :|  |||
Db        132 ILQRTGHKGYVAFLESLELYYPQLYKKVTG 161
```

RESULT 14
AAB95617
ID AAB95617 standard; Protein; 366 AA.
XX
AC AAB95617;
XX
DT 26-JUN-2001 (first entry)
XX
DE Human protein sequence SEQ ID NO:18328.
XX
KW Human; primer; detection; diagnosis; antisense therapy; gene therapy.
XX
OS Homo sapiens.
XX
PN EP1074617-A2.
XX
PD 07-FEB-2001.
XX
PF 28-JUL-2000; 2000EP-0116126.
XX
PR 29-JUL-1999; 99JP-0248036.
PR 27-AUG-1999; 99JP-0300253.
PR 11-JAN-2000; 2000JP-0118776.
PR 02-MAY-2000; 2000JP-0183767.
PR 09-JUN-2000; 2000JP-0241899.
XX
PA (HELI-) HELIX RES INST.
XX
PI Ota T, Isogai T, Nishikawa T, Hayashi K, Saito K, Yamamoto J;
PI Ishii S, Sugiyama T, Wakamatsu A, Nagai K, Otsuki T;
XX
DR WPI; 2001-318749/34.
XX
PT Primer sets for synthesizing polynucleotides, particularly the 5602
PT full-length cDNAs defined in the specification, and for the detection
PT and/or diagnosis of the abnormality of the proteins encoded by the
PT full-length cDNAs -
XX
PS Claim 8; SEQ ID 18328; 2537pp + CD ROM; English.
XX
CC The present invention describes primer sets for synthesising 5602
CC full-length cDNAs defined in the specification. Where a primer set
CC comprises: (a) an oligo-dT primer and an oligonucleotide complementary
CC to the complementary strand of a polynucleotide which comprises one of
CC the 5602 nucleotide sequences defined in the specification, where the
CC oligonucleotide comprises at least 15 nucleotides; or (b) a combination
CC of an oligonucleotide comprising a sequence complementary to the
CC complementary strand of a polynucleotide which comprises a 5'-end
CC sequence and an oligonucleotide comprising a sequence complementary to a
CC polynucleotide which comprises a 3'-end sequence, where the
CC oligonucleotide comprises at least 15 nucleotides and the combination of
CC the 5'-end sequence/3'-end sequence is selected from those defined in
CC the specification. The primer sets can be used in antisense therapy and
CC in gene therapy. The primers are useful for synthesising polynucleotides,
CC particularly full-length cDNAs. The primers are also useful for the
CC detection and/or diagnosis of the abnormality of the proteins encoded by
CC the full-length cDNAs. The primers allow obtaining of the full-length
CC cDNAs easily without any specialised methods. AAH03166 to AAH13628 and
CC AAH13633 to AAH18742 represent human cDNA sequences; AAB92446 to
CC AAB95893 represent human amino acid sequences; and AAH13629 to AAH13632
CC represent oligonucleotides, all of which are used in the exemplification
CC of the present invention.
XX
SQ Sequence 366 AA;

```
  Query Match             41.1%;  Score 199;  DB 22;  Length 366;
  Best Local Similarity   45.6%;  Pred. No. 5.2e-18;
  Matches   41;  Conservative   14;  Mismatches   35;  Indels    0;  Gaps    0;

Qy          1 EETLWEMMESHRHRIVRCICPSRLTPYLRQAKVLCQLDEEEVLHSPRLTNSAMRAGHLLD 60
              ::  | ::|  |  :  | |||:|||||| |||  |||:||  | |     : | |||
Db          7 DDECWNVLEGFRVTLTSVIDPSRITPYLRQCKVLNPDDEEQVLSDPNLVIRKRKVGVLLD 66

Qy         61 LLKTRGKNGAIAFLESLKFHNPDVYTLVTG 90
              :|:  |  | :||||||: : | :|  |||
Db         67 ILQRTGHKGYVAFLESLELYYPQLYKKVTG 96
```

RESULT 15
ABG76060
ID ABG76060 standard; protein; 366 AA.
XX
AC ABG76060;
XX
DT 09-MAY-2003 (first entry)
XX
DE Caspase recruitment domain containing protein, CARD-10X.
XX
KW CARD; caspase recruitment domain; apoptosis; cell adhesion; inflammation;
KW cytokine receptor signalling; cancer; glioma; carcinoma; adenocarcinoma;
KW CARD-containing polypeptide associated disorder; sarcoma; melanoma;
KW hamartoma; leukaemia; lymphoma; keratinocyte hyperplasia; neoplasia;
KW keloid; benign prostatic hypertrophy; inflammatory hyperplasia; fibrosis;
KW restenosis; allergy; arthritis; lupus; Sjogren's syndrome; sepsis;
KW Crohn's disease; ulcerative colitis; graft versus host disease; stroke;
KW abnormal cell death disease; myocardial infarction; heart failure;
KW neurodegenerative disease; Parkinson's disease; Alzheimer's disease; HIV;
KW CARD-10X; caspase activator; caspase inhibitor.
XX
OS Unidentified.
XX
FH Key Location/Qualifiers
FT Domain 12..83
FT /label= CARD
FT /note= "Caspase recruitment domain. Specifically
FT claimed in claim 12"
FT Domain 154..297
FT /label= Filament_domain
FT /note= "Specifically claimed in claim 12"
XX
PN US2002164703-A1.
XX
PD 07-NOV-2002.
XX
PF 19-DEC-2001; 2001US-0032159.
XX
PR 21-DEC-2000; 2000US-257457P.
XX
PA (PAWL/) PAWLOWSKI K.
PA (REED/) REED J C.
PA (GODZ/) GODZIK A.
XX
PI Pawlowski K, Reed JC, Godzik A;
XX
DR WPI; 2003-288137/28.
DR N-PSDB; ABX11432.
XX
PT New isolated CARD-containing nucleic acids, useful for the diagnosis
PT and treatment of disorders with aberrant expression or activity of the
PT CARD-containing polypeptide, such as cancer, stroke, arthritis, heart
PT failure and AIDS -
XX
PS Claim 13; Fig 1; 34pp; English.
XX
CC The invention relates to an isolated nucleic acid molecule encoding a
CC caspase recruitment domain (CARD) containing polypeptide. CARD containing
CC polypeptides are involved in apoptosis (as caspase activators and caspase

CC inhibitors), cell adhesion, inflammation and cytokine receptor
CC signalling. The methods and compositions of the present invention are
CC useful for the diagnosis and treatment of disorders associated with the
CC aberrant expression or activity of the CARD containing polypeptide such
CC as cancer, glioma, carcinoma, adenocarcinoma, sarcoma, melanoma, keloid,
CC hamartoma, leukaemia, lymphoma, keratinocyte hyperplasia, neoplasia,
CC benign prostatic hypertrophy, inflammatory hyperplasia, fibrosis,
CC restenosis, allergies, inflammatory diseases such as arthritis, lupus,
CC Sjogren's syndrome, Crohn's disease, ulcerative colitis, graft versus
CC host disease, sepsis, abnormal cell death diseases such as stroke,
CC myocardial infarction, heart failure, neurodegenerative diseases like
CC Parkinson's disease and Alzheimer's disease, and HIV infection. The
CC present sequence represents the amino acid sequence of the caspase
CC recruitment domain containing protein, CARD-10X.
XX
SQ Sequence 366 AA;

Query Match 41.1%; Score 199; DB 24; Length 366;
Best Local Similarity 45.6%; Pred. No. 5.2e-18;
Matches 41; Conservative 14; Mismatches 35; Indels 0; Gaps 0;

```
Qy          1 EETLWEMMESHRHRIVRCICPSRLTPYLRQAKVLCQLDEEEVLHSPRLTNSAMRAGHLLD 60
              ::  | ::|  |  :   | |||:|||||| |||   |||:||  | |     : | |||
Db          7 DDECWNVLEGFRVTLTSVIDPSRITPYLRQCKVLNPDDEEQVLSDPNLVIRKRKVGVLLD 66

Qy         61 LLKTRGKNGAIAFLESLKFHNPDVYTLVTG 90
              :|:  |  | :||||||: : | :|  |||
Db         67 ILQRTGHKGYVAFLESLELYYPQLYKKVTG 96
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Search completed: February 9, 2004, 17:32:36
Job time : 42 secs

GenCore version 5.1.6

OM nucleic - nucleic search, using sw model

Run on: February 9, 2004, 15:58:29 ; Search time 226 Seconds
(without alignments)
4498.596 Million cell updates/sec

Title: US-10-032-159A-17
Perfect score: 276
Sequence: 1 gaggagacactgtgggagat.....ccctggtcaccgggctgcag 276

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 2449703 seqs, 1841816367 residues

Total number of hits satisfying chosen parameters: 4899406

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published_Applications_NA:*
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2: /cgn2_6/ptodata/1/pubpna/PCT_NEW_PUB.seq:*
3: /cgn2_6/ptodata/1/pubpna/US06_NEW_PUB.seq:*
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7: /cgn2_6/ptodata/1/pubpna/US08_NEW_PUB.seq:*
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12: /cgn2_6/ptodata/1/pubpna/US09_NEW_PUB.seq:*
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14: /cgn2_6/ptodata/1/pubpna/US10A_PUBCOMB.seq:*
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18: /cgn2_6/ptodata/1/pubpna/US60_PUBCOMB.seq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	276	100.0	276	14	US-10-032-159A-17	Sequence 17, Appl
2	276	100.0	417	14	US-10-032-159A-15	Sequence 15, Appl
3	276	100.0	3012	9	US-09-767-215-3	Sequence 3, Appli
4	276	100.0	3417	9	US-09-767-215-4	Sequence 4, Appli
5	276	100.0	3766	12	US-10-104-047-315	Sequence 315, App
6	276	100.0	3931	9	US-09-767-215-1	Sequence 1, Appli
7	113.4	41.1	3096	11	US-09-798-412-9	Sequence 9, Appli
8	113.4	41.1	3096	15	US-10-325-917-9	Sequence 9, Appli
9	113.4	41.1	3949	11	US-09-798-412-7	Sequence 7, Appli
10	113.4	41.1	3949	15	US-10-325-917-7	Sequence 7, Appli
11	100.4	36.4	276	14	US-10-032-159A-9	Sequence 9, Appli
12	100.4	36.4	3441	11	US-09-798-412-12	Sequence 12, Appl
13	100.4	36.4	3441	15	US-10-325-917-12	Sequence 12, Appl
14	100.4	36.4	3744	14	US-10-032-159A-7	Sequence 7, Appli
15	100.4	36.4	4276	11	US-09-798-412-10	Sequence 10, Appl
16	100.4	36.4	4276	15	US-10-325-917-10	Sequence 10, Appl
17	92.6	33.6	514	10	US-09-796-692-3560	Sequence 3560, Ap
18	92.6	33.6	514	12	US-10-057-475B-3560	Sequence 3560, Ap
19	92.6	33.6	514	12	US-10-154-884B-3560	Sequence 3560, Ap
20	92.6	33.6	514	15	US-10-040-862-3560	Sequence 3560, Ap
21	88	31.9	1101	14	US-10-032-159A-1	Sequence 1, Appli
22	88	31.9	1608	11	US-09-798-412-6	Sequence 6, Appli
23	88	31.9	1608	15	US-10-325-917-6	Sequence 6, Appli
24	88	31.9	2098	11	US-09-798-412-4	Sequence 4, Appli
25	88	31.9	2098	15	US-10-325-917-4	Sequence 4, Appli
26	88	31.9	2176	14	US-10-032-159A-19	Sequence 19, Appl
27	79.6	28.8	1608	11	US-09-798-412-3	Sequence 3, Appli
28	79.6	28.8	1608	15	US-10-325-917-3	Sequence 3, Appli
29	79.6	28.8	1879	11	US-09-798-412-1	Sequence 1, Appli
30	79.6	28.8	1879	15	US-10-325-917-1	Sequence 1, Appli
31	69.8	25.3	216	14	US-10-032-159A-3	Sequence 3, Appli
32	66.8	24.2	1141	14	US-10-032-159A-37	Sequence 37, Appl
33	50.2	18.2	281	14	US-10-032-159A-21	Sequence 21, Appl
c 34	49	17.8	858	13	US-10-027-632-166977	Sequence 166977,
c 35	49	17.8	858	14	US-10-027-632-166977	Sequence 166977,
36	48.2	17.5	804	13	US-10-027-632-172688	Sequence 172688,
37	48.2	17.5	804	14	US-10-027-632-172688	Sequence 172688,
c 38	47.8	17.3	500	13	US-10-029-386-12805	Sequence 12805, A
c 39	44.4	16.1	145	13	US-10-029-386-26505	Sequence 26505, A
c 40	44.2	16.0	1230	12	US-10-369-493-42937	Sequence 42937, A
41	43.6	15.8	1140	12	US-10-369-493-41640	Sequence 41640, A
42	42.8	15.5	1365	12	US-10-369-493-32426	Sequence 32426, A
43	42.8	15.5	1548	12	US-10-369-493-31289	Sequence 31289, A
44	42.8	15.5	2121	12	US-10-369-493-28530	Sequence 28530, A
45	42	15.2	569	13	US-10-029-386-2514	Sequence 2514, Ap

ALIGNMENTS

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RESULT 1
US-10-032-159A-17
; Sequence 17, Application US/10032159A
; Publication No. US20020164703A1
; GENERAL INFORMATION:
;  APPLICANT: Pawlowski, Krzysztof
;  APPLICANT:  Reed, John C.
;  APPLICANT:  Godzik, Adam
;  TITLE OF INVENTION: CARD-DOMAIN CONTAINING POLYPEPTIDES,
;  TITLE OF INVENTION:  ENCODING NUCLEIC ACIDS, AND METHODS OF USE
;  FILE REFERENCE: P-LJ 5100
;  CURRENT APPLICATION NUMBER: US/10/032,159A
;  CURRENT FILING DATE:  2001-12-19
;  PRIOR APPLICATION NUMBER: US 60/257,457
;  PRIOR FILING DATE: 2000-12-21
;  NUMBER OF SEQ ID NOS: 37
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 17
;   LENGTH: 276
;   TYPE: DNA
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: CDS
;   LOCATION: (1)...(276)
US-10-032-159A-17

  Query Match           100.0%;  Score 276;  DB 14;  Length 276;
  Best Local Similarity  100.0%;  Pred. No. 7.1e-66;
  Matches  276;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 GAGGAGACACTGTGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 GAGGAGACACTGTGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGC 60

Qy         61 CCCAGCCGCCTCACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAG 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 CCCAGCCGCCTCACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAG 120
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Qy        121 GAGGTGCTGCACAGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGAT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GAGGTGCTGCACAGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGAT 180

Qy        181 TTGCTGAAGACTCGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCAC 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 TTGCTGAAGACTCGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCAC 240

Qy        241 AACCCTGACGTCTACACCCTGGTCACCGGGCTGCAG 276
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Db        241 AACCCTGACGTCTACACCCTGGTCACCGGGCTGCAG 276


RESULT 2
US-10-032-159A-15
; Sequence 15, Application US/10032159A
; Publication No. US20020164703A1
; GENERAL INFORMATION:
;  APPLICANT: Pawlowski, Krzysztof
;  APPLICANT:  Reed, John C.
;  APPLICANT:  Godzik, Adam
;  TITLE OF INVENTION: CARD-DOMAIN CONTAINING POLYPEPTIDES,
;  TITLE OF INVENTION:  ENCODING NUCLEIC ACIDS, AND METHODS OF USE
;  FILE REFERENCE: P-LJ 5100
;  CURRENT APPLICATION NUMBER: US/10/032,159A
;  CURRENT FILING DATE:  2001-12-19
;  PRIOR APPLICATION NUMBER: US 60/257,457
;  PRIOR FILING DATE: 2000-12-21
;  NUMBER OF SEQ ID NOS: 37
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 15
;   LENGTH: 417
;   TYPE: DNA
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: CDS
;   LOCATION: (1)...(417)
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: 416, 417
;   OTHER INFORMATION: n = A,T,C or G
US-10-032-159A-15

  Query Match             100.0%;  Score 276;  DB 14;  Length 417;
  Best Local Similarity   100.0%;  Pred. No. 7.2e-66;
  Matches  276;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 GAGGAGACACTGTGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         46 GAGGAGACACTGTGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGC 105

Qy         61 CCCAGCCGCCTCACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAG 120
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Db        106 CCCAGCCGCCTCACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAG 165

Qy        121 GAGGTGCTGCACAGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGAT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        166 GAGGTGCTGCACAGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGAT 225

Qy        181 TTGCTGAAGACTCGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCAC 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        226 TTGCTGAAGACTCGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCAC 285

Qy        241 AACCCTGACGTCTACACCCTGGTCACCGGGCTGCAG 276
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Db        286 AACCCTGACGTCTACACCCTGGTCACCGGGCTGCAG 321


RESULT 3
US-09-767-215-3
; Sequence 3, Application US/09767215
; Patent No. US20020081636A1
; GENERAL INFORMATION:
;  APPLICANT: Bertin, John
;  TITLE OF INVENTION: NOVEL MOLECULES OF THE CARD-RELATED
;  TITLE OF INVENTION:  PROTEIN FAMILY AND USES THEREOF
;  FILE REFERENCE: 07334-142001
;  CURRENT APPLICATION NUMBER: US/09/767,215
;  CURRENT FILING DATE:  2001-01-22
;  PRIOR APPLICATION NUMBER: 60/181,159
;  PRIOR FILING DATE: 2000-02-09
;  NUMBER OF SEQ ID NOS: 10
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 3
;   LENGTH: 3012
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-767-215-3

  Query Match             100.0%;  Score 276;  DB 9;  Length 3012;
  Best Local Similarity   100.0%;  Pred. No. 7.6e-66;
  Matches  276;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 GAGGAGACACTGTGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGC 60
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Db         46 GAGGAGACACTGTGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGC 105

Qy         61 CCCAGCCGCCTCACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAG 120
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Db        106 CCCAGCCGCCTCACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAG 165

Qy        121 GAGGTGCTGCACAGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGAT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        166 GAGGTGCTGCACAGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGAT 225

Qy        181 TTGCTGAAGACTCGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCAC 240
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Db        226 TTGCTGAAGACTCGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCAC 285

Qy        241 AACCCTGACGTCTACACCCTGGTCACCGGGCTGCAG 276
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Db        286 AACCCTGACGTCTACACCCTGGTCACCGGGCTGCAG 321


RESULT 4
US-09-767-215-4
; Sequence 4, Application US/09767215
; Patent No. US20020081636A1
; GENERAL INFORMATION:
;  APPLICANT: Bertin, John
;  TITLE OF INVENTION: NOVEL MOLECULES OF THE CARD-RELATED
;  TITLE OF INVENTION:  PROTEIN FAMILY AND USES THEREOF
;  FILE REFERENCE: 07334-142001
;  CURRENT APPLICATION NUMBER: US/09/767,215
;  CURRENT FILING DATE:  2001-01-22
;  PRIOR APPLICATION NUMBER: 60/181,159
;  PRIOR FILING DATE: 2000-02-09
;  NUMBER OF SEQ ID NOS: 10
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 4
;   LENGTH: 3417
;   TYPE: DNA
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: CDS
;   LOCATION: (1)...(3417)
US-09-767-215-4

  Query Match             100.0%;  Score 276;  DB 9;  Length 3417;
  Best Local Similarity   100.0%;  Pred. No. 7.6e-66;
  Matches  276;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 GAGGAGACACTGTGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         46 GAGGAGACACTGTGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGC 105
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Qy          61 CCCAGCCGCCTCACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAG 120
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Db         106 CCCAGCCGCCTCACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAG 165

Qy         121 GAGGTGCTGCACAGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGAT 180
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Db         166 GAGGTGCTGCACAGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGAT 225

Qy         181 TTGCTGAAGACTCGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCAC 240
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Db         226 TTGCTGAAGACTCGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCAC 285

Qy         241 AACCCTGACGTCTACACCCTGGTCACCGGGCTGCAG 276
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Db         286 AACCCTGACGTCTACACCCTGGTCACCGGGCTGCAG 321


RESULT 5
US-10-104-047-315
; Sequence 315, Application US/10104047
; Publication No. US20030236392A1
; GENERAL INFORMATION:
;  APPLICANT: HELIX RESEARCH INSTITUTE
;  TITLE OF INVENTION: No. US20030236392A1el full length cDNA
;  FILE REFERENCE: H1-A0105
;  CURRENT APPLICATION NUMBER: US/10/104,047
;  CURRENT FILING DATE:  2002-03-25
;  PRIOR APPLICATION NUMBER:
;  PRIOR FILING DATE:
;  NUMBER OF SEQ ID NOS: 4096
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 315
;   LENGTH: 3766
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-10-104-047-315

  Query Match             100.0%;  Score 276;  DB 12;  Length 3766;
  Best Local Similarity   100.0%;  Pred. No. 7.6e-66;
  Matches  276;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy           1 GAGGAGACACTGTGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGC 60
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Db         237 GAGGAGACACTGTGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGC 296

Qy          61 CCCAGCCGCCTCACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAG 120
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         297 CCCAGCCGCCTCACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAG 356

Qy         121 GAGGTGCTGCACAGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGAT 180
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         357 GAGGTGCTGCACAGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGAT 416

Qy         181 TTGCTGAAGACTCGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCAC 240
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         417 TTGCTGAAGACTCGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCAC 476

Qy         241 AACCCTGACGTCTACACCCTGGTCACCGGGCTGCAG 276
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Db         477 AACCCTGACGTCTACACCCTGGTCACCGGGCTGCAG 512


RESULT 6
US-09-767-215-1
; Sequence 1, Application US/09767215
; Patent No. US20020081636A1
; GENERAL INFORMATION:
;  APPLICANT: Bertin, John
;  TITLE OF INVENTION: NOVEL MOLECULES OF THE CARD-RELATED
;  TITLE OF INVENTION:  PROTEIN FAMILY AND USES THEREOF
;  FILE REFERENCE: 07334-142001
;  CURRENT APPLICATION NUMBER: US/09/767,215
;  CURRENT FILING DATE:  2001-01-22
;  PRIOR APPLICATION NUMBER: 60/181,159
;  PRIOR FILING DATE: 2000-02-09
;  NUMBER OF SEQ ID NOS: 10
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 1
;   LENGTH: 3931
;   TYPE: DNA
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: CDS
;   LOCATION: (207)...(3218)
US-09-767-215-1

  Query Match             100.0%;  Score 276;  DB 9;  Length 3931;
  Best Local Similarity   100.0%;  Pred. No. 7.7e-66;
  Matches  276;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy           1 GAGGAGACACTGTGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGC 60
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Db         252 GAGGAGACACTGTGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGC 311

Qy          61 CCCAGCCGCCTCACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAG 120
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         312 CCCAGCCGCCTCACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAG 371

Qy         121 GAGGTGCTGCACAGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGAT 180
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         372 GAGGTGCTGCACAGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGAT 431

Qy         181 TTGCTGAAGACTCGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCAC 240
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Db         432 TTGCTGAAGACTCGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCAC 491

Qy         241 AACCCTGACGTCTACACCCTGGTCACCGGGCTGCAG 276
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Db         492 AACCCTGACGTCTACACCCTGGTCACCGGGCTGCAG 527


RESULT 7
US-09-798-412-9
; Sequence 9, Application US/09798412
; Publication No. US20030109428A1
; GENERAL INFORMATION:
;  APPLICANT: Bertin, John
;  TITLE OF INVENTION: NOVEL MOLECULES OF THE CARD-RELATED
;  TITLE OF INVENTION:  PROTEIN FAMILY AND USES THEREOF
;  FILE REFERENCE: 07334-327001
;  CURRENT APPLICATION NUMBER: US/09/798,412
;  CURRENT FILING DATE:  2001-03-02
;  PRIOR APPLICATION NUMBER: US 09/728,260
;  PRIOR FILING DATE: 2000-12-01
;  PRIOR APPLICATION NUMBER: US 09/685,791
;  PRIOR FILING DATE: 2000-10-10
;  PRIOR APPLICATION NUMBER: US 09/513,904
;  PRIOR FILING DATE: 2000-02-25
;  PRIOR APPLICATION NUMBER: US 09/507,533
;  PRIOR FILING DATE: 2000-02-18
;  PRIOR APPLICATION NUMBER: US 60/168,780
;  PRIOR FILING DATE: 1999-12-03
;  NUMBER OF SEQ ID NOS: 19
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 9
;   LENGTH: 3096
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-798-412-9

  Query Match              41.1%;  Score 113.4;  DB 11;  Length 3096;
  Best Local Similarity    63.3%;  Pred. No. 1.5e-21;
  Matches  174;  Conservative    0;  Mismatches  101;  Indels    0;  Gaps    0;

Qy           1 GAGGAGACACTGTGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGC 60
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Db         70 GAGGACGCGCTGTGGGAGCGAATCGAGGGCGTCCGGCATCGGCTGGCTCGCGCCCTGAAC 129

Qy         61 CCCAGCCGCCTCACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAG 120
              ||    |  |||||  ||  ||  |||||||||   |  |||  |   | |||  ||||||||||
Db        130 CCGGCCAAGCTCACGCCGTATCTGCGCCAGTGCCGGGTCATCGACGAGCAGGACGAGGAG 189

Qy        121 GAGGTGCTGCACAGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGAT 180
              |||||||||  ||  |  |||  ||  |   | |||  ||  ||  ||||||  |  ||  ||||
Db        190 GAGGTGCTGAGCACCTACCGCTTCCCGTGCCGCGTCAACCGCACCGGGCGCCTGATGGAC 249

Qy        181 TTGCTGAAGACTCGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCAC 240
                |  ||       ||  ||  ||||  ||        ||||||||||    ||||  |||||  ||
Db        250 ATCTTGCGCTGCCGTGGCAAGAGGGGCTATGAGGCCTTCCTGGAAGCCCTGGAGTTCTAC 309

Qy        241 AACCCTGACGTCTACACCCTGGTCACCGGGCTGCA 275
                ||||  ||    ||  |||  |||  ||||  ||  |  |  |
Db        310 TACCCCGAACACTTCACGCTGCTCACGGGCCAGGA 344


RESULT 8
US-10-325-917-9
; Sequence 9, Application US/10325917
; Publication No. US20030113787A1
; GENERAL INFORMATION:
;  APPLICANT: Bertin, John
;  TITLE OF INVENTION: NOVEL MOLECULES OF THE CARD-RELATED
;  TITLE OF INVENTION:  PROTEIN FAMILY AND USES THEREOF
;  FILE REFERENCE: 07334-327001
;  CURRENT APPLICATION NUMBER: US/10/325,917
;  CURRENT FILING DATE:  2002-12-20
;  PRIOR APPLICATION NUMBER: US/09/798,412
;  PRIOR FILING DATE: 2001-03-02
;  PRIOR APPLICATION NUMBER: US 09/728,260
;  PRIOR FILING DATE: 2000-12-01
;  PRIOR APPLICATION NUMBER: US 09/685,791
;  PRIOR FILING DATE: 2000-10-10
;  PRIOR APPLICATION NUMBER: US 09/513,904
;  PRIOR FILING DATE: 2000-02-25
;  PRIOR APPLICATION NUMBER: US 09/507,533
;  PRIOR FILING DATE: 2000-02-18
;  PRIOR APPLICATION NUMBER: US 60/168,780
;  PRIOR FILING DATE: 1999-12-03
;  NUMBER OF SEQ ID NOS: 19
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 9
;   LENGTH: 3096
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-10-325-917-9

  Query Match             41.1%;  Score 113.4;  DB 15;  Length 3096;
  Best Local Similarity   63.3%;  Pred. No. 1.5e-21;
  Matches  174;  Conservative    0;  Mismatches  101;  Indels    0;  Gaps    0;

Qy          1 GAGGAGACACTGTGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGC 60
              |||||  |  |||||||||    || |||  ||  |||  ||  ||  |  |  |||  |  |    |
Db         70 GAGGACGCGCTGTGGGAGCGAATCGAGGGCGTCCGGCATCGGCTGGCTCGCGCCCTGAAC 129

Qy         61 CCCAGCCGCCTCACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAG 120
              ||    |  |||||  ||  ||  |||||||||   |  |||  |   | |||  ||||||||||
Db        130 CCGGCCAAGCTCACGCCGTATCTGCGCCAGTGCCGGGTCATCGACGAGCAGGACGAGGAG 189

Qy        121 GAGGTGCTGCACAGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGAT 180
              |||||||||  ||  |  |||  ||  |   | |||  ||  ||  ||||||  |  ||  ||||
Db        190 GAGGTGCTGAGCACCTACCGCTTCCCGTGCCGCGTCAACCGCACCGGGCGCCTGATGGAC 249

Qy        181 TTGCTGAAGACTCGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCAC 240
                |  ||       ||  ||  ||||  ||        ||||||||||    ||||  |||||  ||
Db        250 ATCTTGCGCTGCCGTGGCAAGAGGGGCTATGAGGCCTTCCTGGAAGCCCTGGAGTTCTAC 309

Qy        241 AACCCTGACGTCTACACCCTGGTCACCGGGCTGCA 275
                ||||  ||    ||  |||  |||  ||||  ||  |  |  |
Db        310 TACCCCGAACACTTCACGCTGCTCACGGGCCAGGA 344


RESULT 9
US-09-798-412-7
; Sequence 7, Application US/09798412
; Publication No. US20030109428A1
; GENERAL INFORMATION:
;  APPLICANT: Bertin, John
;  TITLE OF INVENTION: NOVEL MOLECULES OF THE CARD-RELATED
;  TITLE OF INVENTION:  PROTEIN FAMILY AND USES THEREOF
;  FILE REFERENCE: 07334-327001
;  CURRENT APPLICATION NUMBER: US/09/798,412
;  CURRENT FILING DATE:  2001-03-02
;  PRIOR APPLICATION NUMBER: US 09/728,260
;  PRIOR FILING DATE: 2000-12-01
;  PRIOR APPLICATION NUMBER: US 09/685,791
;  PRIOR FILING DATE: 2000-10-10
;  PRIOR APPLICATION NUMBER: US 09/513,904
;  PRIOR FILING DATE: 2000-02-25
;  PRIOR APPLICATION NUMBER: US 09/507,533
;  PRIOR FILING DATE: 2000-02-18
;  PRIOR APPLICATION NUMBER: US 60/168,780
;  PRIOR FILING DATE: 1999-12-03
;  NUMBER OF SEQ ID NOS: 19
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 7
;   LENGTH: 3949
;   TYPE: DNA
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: CDS
;   LOCATION: (41)...(3136)
US-09-798-412-7

  Query Match             41.1%;  Score 113.4;  DB 11;  Length 3949;
  Best Local Similarity   63.3%;  Pred. No. 1.6e-21;
  Matches  174;  Conservative    0;  Mismatches  101;  Indels    0;  Gaps    0;

Qy          1 GAGGAGACACTGTGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGC 60
              |||||  |  |||||||||    || |||  ||  |||  ||  ||  |  |  |||  |  |    |
Db        110 GAGGACGCGCTGTGGGAGCGAATCGAGGGCGTCCGGCATCGGCTGGCTCGCGCCCTGAAC 169

Qy         61 CCCAGCCGCCTCACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAG 120
              ||    |  |||||  ||  ||  |||||||||   |  |||  |   | |||  ||||||||||
Db        170 CCGGCCAAGCTCACGCCGTATCTGCGCCAGTGCCGGGTCATCGACGAGCAGGACGAGGAG 229

Qy        121 GAGGTGCTGCACAGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGAT 180
              |||||||||  ||  |  |||  ||  |   | |||  ||  ||  ||||||  |  ||  ||||
Db        230 GAGGTGCTGAGCACCTACCGCTTCCCGTGCCGCGTCAACCGCACCGGGCGCCTGATGGAC 289

Qy        181 TTGCTGAAGACTCGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCAC 240
                |  ||       ||  ||  ||||  ||        ||||||||||    ||||  |||||  ||
Db        290 ATCTTGCGCTGCCGTGGCAAGAGGGGCTATGAGGCCTTCCTGGAAGCCCTGGAGTTCTAC 349

Qy        241 AACCCTGACGTCTACACCCTGGTCACCGGGCTGCA 275
                ||||  ||    ||  |||  |||  ||||  ||  |  |  |
Db        350 TACCCCGAACACTTCACGCTGCTCACGGGCCAGGA 384


RESULT 10
US-10-325-917-7
; Sequence 7, Application US/10325917
; Publication No. US20030113787A1
; GENERAL INFORMATION:
;  APPLICANT: Bertin, John
;  TITLE OF INVENTION: NOVEL MOLECULES OF THE CARD-RELATED
;  TITLE OF INVENTION:  PROTEIN FAMILY AND USES THEREOF
;  FILE REFERENCE: 07334-327001
;  CURRENT APPLICATION NUMBER: US/10/325,917
;  CURRENT FILING DATE:  2002-12-20
;  PRIOR APPLICATION NUMBER: US/09/798,412
;  PRIOR FILING DATE: 2001-03-02
;  PRIOR APPLICATION NUMBER: US 09/728,260
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;  PRIOR FILING DATE: 2000-12-01
;  PRIOR APPLICATION NUMBER: US 09/685,791
;  PRIOR FILING DATE: 2000-10-10
;  PRIOR APPLICATION NUMBER: US 09/513,904
;  PRIOR FILING DATE: 2000-02-25
;  PRIOR APPLICATION NUMBER: US 09/507,533
;  PRIOR FILING DATE: 2000-02-18
;  PRIOR APPLICATION NUMBER: US 60/168,780
;  PRIOR FILING DATE: 1999-12-03
;  NUMBER OF SEQ ID NOS: 19
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 7
;   LENGTH: 3949
;   TYPE: DNA
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: CDS
;   LOCATION: (41)...(3136)
US-10-325-917-7

  Query Match            41.1%;  Score 113.4;  DB 15;  Length 3949;
  Best Local Similarity  63.3%;  Pred. No. 1.6e-21;
  Matches  174;  Conservative    0;  Mismatches  101;  Indels    0;  Gaps    0;

Qy          1 GAGGAGACACTGTGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGC 60
              |||||  |  |||||||||   || ||| ||  ||| ||  || | |  |||  | |   |
Db        110 GAGGACGCGCTGTGGGAGCGAATCGAGGGCGTCCGGCATCGGCTGGCTCGCGCCCTGAAC 169

Qy         61 CCCAGCCGCCTCACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAG 120
              ||   |  |||||  || || |||||||||  |  |||  |  | ||| ||||||||||
Db        170 CCGGCCAAGCTCACGCCGTATCTGCGCCAGTGCCGGGTCATCGACGAGCAGGACGAGGAG 229

Qy        121 GAGGTGCTGCACAGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGAT 180
              |||||||||  || |  |||  || |   | ||| ||  ||  |||||| | || ||||
Db        230 GAGGTGCTGAGCACCTACCGCTTCCCGTGCCGCGTCAACCGCACCGGGCGCCTGATGGAC 289

Qy        181 TTGCTGAAGACTCGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCAC 240
              |  ||    || || ||||  ||       ||||||||||   |||| |||||  ||
Db        290 ATCTTGCGCTGCCGTGGCAAGAGGGGCTATGAGGCCTTCCTGGAAGCCCTGGAGTTCTAC 349

Qy        241 AACCCTGACGTCTACACCCTGGTCACCGGGCTGCA 275
              ||||  ||   || ||| ||| |||| || | | |
Db        350 TACCCCGAACACTTCACGCTGCTCACGGGCCAGGA 384


RESULT 11
US-10-032-159A-9
; Sequence 9, Application US/10032159A
; Publication No. US20020164703A1
; GENERAL INFORMATION:
;  APPLICANT: Pawlowski, Krzysztof
;  APPLICANT:  Reed, John C.
;  APPLICANT:  Godzik, Adam
;  TITLE OF INVENTION: CARD-DOMAIN CONTAINING POLYPEPTIDES,
;  TITLE OF INVENTION:  ENCODING NUCLEIC ACIDS, AND METHODS OF USE
;  FILE REFERENCE: P-LJ 5100
;  CURRENT APPLICATION NUMBER: US/10/032,159A
;  CURRENT FILING DATE:  2001-12-19
;  PRIOR APPLICATION NUMBER: US 60/257,457
;  PRIOR FILING DATE: 2000-12-21
;  NUMBER OF SEQ ID NOS: 37
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 9
;   LENGTH: 276
;   TYPE: DNA
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: CDS
;   LOCATION: (1)...(276)
US-10-032-159A-9

  Query Match            36.4%;  Score 100.4;  DB 14;  Length 276;
  Best Local Similarity  60.7%;  Pred. No. 5e-18;
  Matches  164;  Conservative    0;  Mismatches  106;  Indels    0;  Gaps    0;

Qy          1 GAGGAGACACTGTGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGC 60
              |||||  |  |||||||||   |||| |  |||| |||| | ||   |||| |||  |
Db          1 GAGGACGCCTTGTGGGAGAATGTGGAGTGTAACCGGCACATGCTCAGCCGCTATATCAAC 60

Qy         61 CCCAGCCGCCTCACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAG 120
              ||   |  ||||| |||||||||||| |||  |||||  |  ||| ||| || ||
Db         61 CCTGCCAAGCTCACGCCCTACCTGCGTCAGTGTAAGGTCATTGATGAGCAGGATGAAGAT 120

Qy        121 GAGGTGCTGCACAGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGAT 180
              || |||||  |  |||  ||| |  ||  ||  || || || |  || ||||
Db        121 GAAGTGCTTAATGCCCCTATGCTGCCATCCAAGATCAACCGAGCAGGCCGGCTGTTGGAC 180

Qy        181 TTGCTGAAGACTCGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCAC 240
              | ||  | ||   ||| | |  ||      | | |||| ||||||||||  | ||  |
Db        181 ATTCTACATACCAAGGGGCAAAGGGGCTATGTGGTCTTCTTGGAGAGCCTAGAATTTTAT 240

Qy        241 AACCCTGACGTCTACACCCTGGTCACCGGG 270
              |||| ||  | ||||  ||||| || |||
Db        241 TACCCAGAACTGTACAAACTGGTGACTGGG 270


RESULT 12
US-09-798-412-12
; Sequence 12, Application US/09798412
; Publication No. US20030109428A1
; GENERAL INFORMATION:
;  APPLICANT: Bertin, John
;  TITLE OF INVENTION: NOVEL MOLECULES OF THE CARD-RELATED
;  TITLE OF INVENTION:  PROTEIN FAMILY AND USES THEREOF
;  FILE REFERENCE: 07334-327001
;  CURRENT APPLICATION NUMBER: US/09/798,412
;  CURRENT FILING DATE:  2001-03-02
;  PRIOR APPLICATION NUMBER: US 09/728,260
;  PRIOR FILING DATE: 2000-12-01
;  PRIOR APPLICATION NUMBER: US 09/685,791
;  PRIOR FILING DATE: 2000-10-10
;  PRIOR APPLICATION NUMBER: US 09/513,904
;  PRIOR FILING DATE: 2000-02-25
;  PRIOR APPLICATION NUMBER: US 09/507,533
;  PRIOR FILING DATE: 2000-02-18
;  PRIOR APPLICATION NUMBER: US 60/168,780
;  PRIOR FILING DATE: 1999-12-03
;  NUMBER OF SEQ ID NOS: 19
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 12
;   LENGTH: 3441
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-798-412-12

  Query Match            36.4%;  Score 100.4;  DB 11;  Length 3441;
  Best Local Similarity  60.7%;  Pred. No. 5.4e-18;
  Matches  164;  Conservative    0;  Mismatches  106;  Indels    0;  Gaps    0;

Qy          1 GAGGAGACACTGTGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGC 60
              |||||  |  |||||||||   |||| |  |||| |||| | ||   |||| |||  |
Db         34 GAGGACGCCTTGTGGGAGAATGTGGAGTGTAACCGGCACATGCTCAGCCGCTATATCAAC 93

Qy         61 CCCAGCCGCCTCACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAG 120
              ||   |  ||||| |||||||||||| |||  |||||  |  ||| ||| || ||
Db         94 CCTGCCAAGCTCACGCCCTACCTGCGTCAGTGTAAGGTCATTGATGAGCAGGATGAAGAT 153

Qy        121 GAGGTGCTGCACAGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGAT 180
              || |||||  |  |||  ||| |  ||  ||  || || || |  || ||||
Db        154 GAAGTGCTTAATGCCCCTATGCTGCCATCCAAGATCAACCGAGCAGGCCGGCTGTTGGAC 213

Qy        181 TTGCTGAAGACTCGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCAC 240
              | ||  | ||   ||| | |  ||      | | |||| ||||||||||  | ||  |
Db        214 ATTCTACATACCAAGGGGCAAAGGGGCTATGTGGTCTTCTTGGAGAGCCTAGAATTTTAT 273

Qy        241 AACCCTGACGTCTACACCCTGGTCACCGGG 270
```

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                  |||| ||  | ||||  ||||| || |||
Db        274 TACCCAGAACTGTACAAACTGGTGACTGGG 303


RESULT 13
US-10-325-917-12
; Sequence 12, Application US/10325917
; Publication No. US20030113787A1
; GENERAL INFORMATION:
;  APPLICANT: Bertin, John
;  TITLE OF INVENTION: NOVEL MOLECULES OF THE CARD-RELATED
;  TITLE OF INVENTION:  PROTEIN FAMILY AND USES THEREOF
;  FILE REFERENCE: 07334-327001
;  CURRENT APPLICATION NUMBER: US/10/325,917
;  CURRENT FILING DATE:  2002-12-20
;  PRIOR APPLICATION NUMBER: US/09/798,412
;  PRIOR FILING DATE: 2001-03-02
;  PRIOR APPLICATION NUMBER: US 09/728,260
;  PRIOR FILING DATE: 2000-12-01
;  PRIOR APPLICATION NUMBER: US 09/685,791
;  PRIOR FILING DATE: 2000-10-10
;  PRIOR APPLICATION NUMBER: US 09/513,904
;  PRIOR FILING DATE: 2000-02-25
;  PRIOR APPLICATION NUMBER: US 09/507,533
;  PRIOR FILING DATE: 2000-02-18
;  PRIOR APPLICATION NUMBER: US 60/168,780
;  PRIOR FILING DATE: 1999-12-03
;  NUMBER OF SEQ ID NOS: 19
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 12
;   LENGTH: 3441
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-10-325-917-12

  Query Match             36.4%;  Score 100.4;  DB 15;  Length 3441;
  Best Local Similarity   60.7%;  Pred. No. 5.4e-18;
  Matches  164;  Conservative    0;  Mismatches  106;  Indels    0;  Gaps    0;

Qy          1 GAGGAGACACTGTGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGC 60
              |||||  |  |||||||||   |||||  |  ||||  ||||  |  ||   ||||  |||  |
Db         34 GAGGACGCCTTGTGGGAGAATGTGGAGTGTAACCGGCACATGCTCAGCCGCTATATCAAC 93

Qy         61 CCCAGCCGCCTCACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAG 120
              ||    |   |||||  ||||||||||| |||   |||||  |      |||  |||  ||  ||
Db         94 CCTGCCAAGCTCACGCCCTACCTGCGTCAGTGTAAGGTCATTGATGAGCAGGATGAAGAT 153

Qy        121 GAGGTGCTGCACAGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGAT 180
              || |||||  |   |||   |||  |   ||     ||  || || || || |   || ||||
Db        154 GAAGTGCTTAATGCCCCTATGCTGCCATCCAAGATCAACCGAGCAGGCCGGCTGTTGGAC 213

Qy        181 TTGCTGAAGACTCGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCAC 240
              | ||  | ||    |||  | |  ||     | | ||||  ||||||||||  | ||  |
Db        214 ATTCTACATACCAAGGGGCAAAGGGGCTATGTGGTCTTCTTGGAGAGCCTAGAATTTTAT 273

Qy        241 AACCCTGACGTCTACACCCTGGTCACCGGG 270
                |||| ||  | ||||  ||||| || |||
Db        274 TACCCAGAACTGTACAAACTGGTGACTGGG 303


RESULT 14
US-10-032-159A-7
; Sequence 7, Application US/10032159A
; Publication No. US20020164703A1
; GENERAL INFORMATION:
;  APPLICANT: Pawlowski, Krzysztof
;  APPLICANT:  Reed, John C.
;  APPLICANT:  Godzik, Adam
;  TITLE OF INVENTION: CARD-DOMAIN CONTAINING POLYPEPTIDES,
;  TITLE OF INVENTION:  ENCODING NUCLEIC ACIDS, AND METHODS OF USE
;  FILE REFERENCE: P-LJ 5100.
;  CURRENT APPLICATION NUMBER: US/10/032,159A
;  CURRENT FILING DATE:  2001-12-19
;  PRIOR APPLICATION NUMBER: US 60/257,457
;  PRIOR FILING DATE: 2000-12-21
;  NUMBER OF SEQ ID NOS: 37
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 7
;   LENGTH: 3744
;   TYPE: DNA
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: CDS
;   LOCATION: (1)...(3744)
US-10-032-159A-7

  Query Match             36.4%;  Score 100.4;  DB 14;  Length 3744;
  Best Local Similarity   60.7%;  Pred. No. 5.4e-18;
  Matches  164;  Conservative    0;  Mismatches  106;  Indels    0;  Gaps    0;

Qy          1 GAGGAGACACTGTGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGC 60
              |||||  |  |||||||||   |||||  |  ||||  ||||  |  ||   ||||  |||  |
Db         34 GAGGACGCCTTGTGGGAGAATGTGGAGTGTAACCGGCACATGCTCAGCCGCTATATCAAC 93

Qy         61 CCCAGCCGCCTCACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAG 120
              ||    |   |||||  ||||||||||| |||   |||||  |      |||  |||  ||  ||
Db         94 CCTGCCAAGCTCACGCCCTACCTGCGTCAGTGTAAGGTCATTGATGAGCAGGATGAAGAT 153

Qy        121 GAGGTGCTGCACAGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGAT 180
              || |||||  |   |||   |||  |   ||     ||  || || || || |   || ||||
Db        154 GAAGTGCTTAATGCCCCTATGCTGCCATCCAAGATCAACCGAGCAGGCCGGCTGTTGGAC 213

Qy        181 TTGCTGAAGACTCGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCAC 240
              | ||  | ||    |||  | |  ||     | | ||||  ||||||||||  | ||  |
Db        214 ATTCTACATACCAAGGGGCAAAGGGGCTATGTGGTCTTCTTGGAGAGCCTAGAATTTTAT 273

Qy        241 AACCCTGACGTCTACACCCTGGTCACCGGG 270
                |||| ||  | ||||  ||||| || |||
Db        274 TACCCAGAACTGTACAAACTGGTGACTGGG 303


RESULT 15
US-09-798-412-10
; Sequence 10, Application US/09798412
; Publication No. US20030109428A1
; GENERAL INFORMATION:
;  APPLICANT: Bertin, John
;  TITLE OF INVENTION: NOVEL MOLECULES OF THE CARD-RELATED
;  TITLE OF INVENTION:  PROTEIN FAMILY AND USES THEREOF
;  FILE REFERENCE: 07334-327001
;  CURRENT APPLICATION NUMBER: US/09/798,412
;  CURRENT FILING DATE:  2001-03-02
;  PRIOR APPLICATION NUMBER: US 09/728,260
;  PRIOR FILING DATE: 2000-12-01
;  PRIOR APPLICATION NUMBER: US 09/685,791
;  PRIOR FILING DATE: 2000-10-10
;  PRIOR APPLICATION NUMBER: US 09/513,904
;  PRIOR FILING DATE: 2000-02-25
;  PRIOR APPLICATION NUMBER: US 09/507,533
;  PRIOR FILING DATE: 2000-02-18
;  PRIOR APPLICATION NUMBER: US 60/168,780
;  PRIOR FILING DATE: 1999-12-03
;  NUMBER OF SEQ ID NOS: 19
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 10
;   LENGTH: 4276
;   TYPE: DNA
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: CDS
;   LOCATION: (328)...(3768)
US-09-798-412-10

  Query Match             36.4%;  Score 100.4;  DB 11;  Length 4276;
  Best Local Similarity   60.7%;  Pred. No. 5.4e-18;
  Matches  164;  Conservative    0;  Mismatches  106;  Indels    0;  Gaps    0;
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Qy          1 GAGGAGACACTGTGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGC 60
              |||||  |  |||||||||  |||||  |  ||||  ||||  |  ||   ||||  |||  |
Db        361 GAGGACGCCTTGTGGGAGAATGTGGAGTGTAACCGGCACATGCTCAGCCGCTATATCAAC 420

Qy         61 CCCAGCCGCCTCACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAG 120
              ||    |   ||||| ||||||||||| |||   |||||  |     ||| ||| || ||
Db        421 CCTGCCAAGCTCACGCCCTACCTGCGTCAGTGTAAGGTCATTGATGAGCAGGATGAAGAT 480

Qy        121 GAGGTGCTGCACAGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGAT 180
              || |||||  |   |||  |||  |   ||    ||  || || || |   || ||||
Db        481 GAAGTGCTTAATGCCCCTATGCTGCCATCCAAGATCAACCGAGCAGGCCGGCTGTTGGAC 540

Qy        181 TTGCTGAAGACTCGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCAC 240
              | ||  | ||   ||| | |  ||     | | |||| ||||||||||  | ||  |
Db        541 ATTCTACATACCAAGGGGCAAAGGGGCTATGTGGTCTTCTTGGAGAGCCTAGAATTTTAT 600

Qy        241 AACCCTGACGTCTACACCCTGGTCACCGGG 270
              |||| ||  | ||||  ||||| || |||
Db        601 TACCCAGAACTGTACAAACTGGTGACTGGG 630
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Search completed: February 10, 2004, 03:07:58
Job time : 231 secs

PN US2002164703-A1.
XX
PD 07-NOV-2002.
XX
PF 19-DEC-2001; 2001US-0032159.
XX
PR 21-DEC-2000; 2000US-257457P.
XX
PA (PAWL/) PAWLOWSKI K.
PA (REED/) REED J C.
PA (GODZ/) GODZIK A.
XX
PI Pawlowski K, Reed JC, Godzik A;
XX
DR WPI; 2003-288137/28.
DR N-PSDB; ABX11431.
XX
PT New isolated CARD-containing nucleic acids, useful for the diagnosis
PT and treatment of disorders with aberrant expression or activity of the
PT CARD-containing polypeptide, such as cancer, stroke, arthritis, heart
PT failure and AIDS -
XX
PS Claim 11; Fig 3; 34pp; English.
XX
CC The invention relates to an isolated nucleic acid molecule encoding a
CC caspase recruitment domain (CARD) containing polypeptide. CARD containing
CC polypeptides are involved in apoptosis (as caspase activators and caspase
CC inhibitors), cell adhesion, inflammation and cytokine receptor
CC signalling. The methods and compositions of the present invention are
CC useful for the diagnosis and treatment of disorders associated with the
CC aberrant expression or activity of the CARD containing polypeptide such
CC as cancer, glioma, carcinoma, adenocarcinoma, sarcoma, melanoma, keloid,
CC hamartoma, leukaemia, lymphoma, keratinocyte hyperplasia, neoplasia,
CC benign prostatic hypertrophy, inflammatory hyperplasia, fibrosis,
CC restenosis, allergies, inflammatory diseases such as arthritis, lupus,
CC Sjogren's syndrome, Crohn's disease, ulcerative colitis, graft versus
CC host disease, sepsis, abnormal cell death diseases such as stroke,
CC myocardial infarction, heart failure, neurodegenerative diseases like
CC Parkinson's disease and Alzheimer's disease, and HIV infection. The
CC present sequence represents the amino acid sequence of the human
CC caspase recruitment domain containing protein, CARD-12X.
XX
SQ Sequence 139 AA;

Query Match 100.0%; Score 484; DB 24; Length 139;
Best Local Similarity 100.0%; Pred. No. 3.2e-57;
Matches 92; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 EETLWEMMESHRHRIVRCICPSRLTPYLRQAKVLCQLDEEEVLHSPRLTNSAMRAGHLLD 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         16 EETLWEMMESHRHRIVRCICPSRLTPYLRQAKVLCQLDEEEVLHSPRLTNSAMRAGHLLD 75

Qy         61 LLKTRGKNGAIAFLESLKFHNPDVYTLVTGLQ 92
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Db         76 LLKTRGKNGAIAFLESLKFHNPDVYTLVTGLQ 107
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RESULT 2
AAE07164
ID AAE07164 standard; Protein; 1004 AA.
XX
AC AAE07164;
XX
DT 06-NOV-2001 (first entry)
XX
DE Human caspase recruitment domain-14 (CARD-14).
XX
KW Human; caspase recruitment domain-14; CARD-14; chromosome 17;
KW nuclear factor-kappa B; NF-kB; cell growth; cell death; cancer; therapy;
KW autoimmune disorder; systemic lupus erythematosus; neurological disorder;
KW Alzheimer's disease; Parkinson's disease; inflammatory disorder; anaemia;
KW haematological disorder; myelodysplastic syndrome; myocardial infarction;
KW stroke;
KW cell signalling disorder; cytostatic; immunosuppressive; nootropic;
KW neuroprotective; antiviral; antibacterial.
XX
OS Homo sapiens.
XX

FH	Key	Location/Qualifiers
FT	Modified-site	6..9
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FT		phosphorylation site"
FT	Domain	10..116
FT		/label= CARD_domain
FT	Modified-site	12..15
FT		/note= "Casein kinase II phosphorylation site"
FT	Modified-site	18..21
FT		/note= "Casein kinase II phosphorylation site"
FT	Modified-site	25..27
FT		/note= "Protein kinase C phosphorylation site"
FT	Modified-site	60..62
FT		/note= "Protein kinase C phosphorylation site"
FT	Modified-site	91..93
FT		/note= "Protein kinase C phosphorylation site"
FT	Modified-site	114..117
FT		/note= "N-glycosylation site"
FT	Modified-site	117..122
FT		/note= "N-myristoylation site"
FT	Modified-site	121..123
FT		/note= "Protein kinase C phosphorylation site"
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FT	Modified-site	221..224
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FT	Modified-site	366..368
FT		/note= "Protein kinase C phosphorylation site"
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GenCore version 5.1.6

OM nucleic - nucleic search, using sw model

Run on: February 9, 2004, 15:58:23 ; Search time 193 Seconds
(without alignments)
3860.336 Million cell updates/sec

Title: US-10-032-159A-17
Perfect score: 276
Sequence: 1 gaggagacactgtgggagat.....ccctggtcaccgggctgcag 276

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 2552756 seqs, 1349719017 residues

Total number of hits satisfying chosen parameters: 5105512

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	276	100.0	417	25	ABX11431	Human caspase recr
2	276	100.0	3417	22	AAD13448	Human caspase recr
3	276	100.0	3931	22	AAD13447	Human caspase recr
4	113.4	41.1	3948	24	AAS98203	DNA encoding plako
5	113.4	41.1	3949	22	AAS05388	Human caspase recr
6	113.4	41.1	3949	24	ABA00333	Human CARD-10 cDNA
7	100.4	36.4	3744	25	ABX11430	Human caspase recr
8	100.4	36.4	4275	22	AAS05389	Human caspase recr
9	100.4	36.4	4276	24	ABA00334	Human CARD-11 cDNA
c 10	88	31.9	524	21	AAC75276	Human ORFX ORF831
c 11	88	31.9	524	24	ABN26534	Human ORFX polynuc
12	88	31.9	765	22	AAH08620	Human cDNA clone (
13	88	31.9	2098	22	AAS05387	Human caspase recr
14	88	31.9	2098	24	ABA00332	Human CARD-9 cDNA.
15	88	31.9	2176	22	AAH18321	Human cDNA sequenc
16	88	31.9	2176	25	ABX11432	DNA encoding caspa
17	79.6	28.8	1879	22	AAS05386	Rat caspase recrui
18	79.6	28.8	1879	24	ABA00331	Rat CARD-9 cDNA.
19	66.8	24.2	1141	25	ABX11449	Human CARD-12X exp
20	50.2	18.2	281	25	ABX11433	Human CARD-10X exp
21	43.4	15.7	5535	23	ABL03813	Drosophila melanog
22	43.4	15.7	10893	23	ABL03812	Drosophila melanog
23	42.2	15.3	2934	22	AAD10330	Human haematopoiet
24	41.8	15.1	2277	19	AAV13836	Homo sapiens mamma
25	41.8	15.1	2277	19	AAV05372	Human telomerase p
26	41.6	15.1	1562	24	ABQ72615	Human MDDT encodin
27	41.6	15.1	1779	22	AAD16344	Human sbgTango79a
28	41.6	15.1	1779	24	ABQ86161	Novel human gene.
29	41.6	15.1	1811	24	ABK48387	DNA encoding human
30	41.6	15.1	1860	24	ABK92037	DNA encoding novel
31	41.6	15.1	2222	24	ABK62081	Human cDNA encodin
32	41.6	15.1	2300	24	AAD41275	Human LP polypepti
33	41.6	15.1	2338	25	ABQ77432	Human CGDD cDNA 68
34	41.2	14.9	309	24	ABL74221	Corn tassel-derive
c 35	41	14.9	1389	21	AAC63862	Human foetal liver
c 36	41	14.9	1545	21	AAC63861	Human foetal liver
37	41	14.9	2860	24	ABT06279	Human NOV1a coding
38	41	14.9	2860	24	ABT06280	Human NOV1b coding
39	41	14.9	3884	22	AAS21316	Human cDNA sequenc
40	41	14.9	3884	25	ACA03675	cDNA encoding huma
41	41	14.9	3884	25	ACA04096	Human cDNA encodin
42	41	14.9	3884	25	ABX89213	DNA encoding novel
43	40.6	14.7	981	24	ABQ39868	Oligonucleotide fo
c 44	40.6	14.7	981	24	ABQ39869	Oligonucleotide fo
45	40.6	14.7	1359	21	AAZ56705	Human transmembran

ALIGNMENTS

RESULT 1
ABX11431
ID ABX11431 standard; cDNA; 417 BP.
XX
AC ABX11431;
XX
DT 09-MAY-2003 (first entry)
XX
DE Human caspase recruitment domain containing protein, CARD-12X, cDNA.
XX
KW CARD; caspase recruitment domain; apoptosis; cell adhesion; inflammation;
KW cytokine receptor signalling; cancer; glioma; carcinoma; adenocarcinoma;
KW CARD-containing polypeptide associated disorder; sarcoma; melanoma; ss;
KW hamartoma; leukaemia; lymphoma; keratinocyte hyperplasia; neoplasia;
KW keloid; benign prostatic hypertrophy; inflammatory hyperplasia; fibrosis;
KW restenosis; allergy; arthritis; lupus; Sjogren's syndrome; sepsis; gene;
KW Crohn's disease; ulcerative colitis; graft versus host disease; stroke;
KW abnormal cell death disease; myocardial infarction; heart failure; human;
KW neurodegenerative disease; Parkinson's disease; Alzheimer's disease; HIV;
KW CARD-12X; caspase activator; caspase inhibitor.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT CDS 1..417
FT /*tag= a
FT /product= "CARD-12X"
FT /partial
FT /transl_except= (pos:415..417,aa:Xaa)
FT /note= "No stop codon given. Xaa = unknown"
FT misc_feature 46..321

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Qy          1 GAGGAGACACTGTGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGC 60
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Db        252 GAGGAGACACTGTGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGC 311

Qy         61 CCCAGCCGCCTCACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAG 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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Qy        121 GAGGTGCTGCACAGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGAT 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        372 GAGGTGCTGCACAGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGAT 431

Qy        181 TTGCTGAAGACTCGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCAC 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        432 TTGCTGAAGACTCGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCAC 491

Qy        241 AACCCTGACGTCTACACCCTGGTCACCGGGCTGCAG 276
              ||||||||||||||||||||||||||||||||||||
Db        492 AACCCTGACGTCTACACCCTGGTCACCGGGCTGCAG 527


RESULT 4
AAS98203
ID   AAS98203 standard; cDNA; 3948 BP.
XX
AC   AAS98203;
XX
DT   12-MAR-2002  (first entry)
XX
DE   DNA encoding plakoglobin interacting protein #3.
XX
KW   Human; plakoglobin; cytostatic; osteopathic; dermatological; cardiant;
KW   plakoglobin related disease; skin carcinoma; acantholytic disease;
KW   basal cell carcinoma; squamous cell carcinoma; Naxos disease; PCR primer;
KW   extramammary Paget's disease; heart disease; skin blistering;
KW   subcorneal acantholysis; Grover's disease; Hailey-Hailey's disease;
KW   Darier's disease; ectodermal dysplasia; skin fragility syndrome; ss.
XX
OS   Homo sapiens.
XX
PN   WO200185933-A2.
XX
PD   15-NOV-2001.
XX
PF   02-MAY-2001; 2001WO-EP04872.
XX
PR   09-MAY-2000; 2000EP-0201668.
XX
PA   (VLAA-) VLAAMS INTERUNIVERSITAIR INST BIOTECHNOG.
XX
PI   Van Roy F,  Bonne S,  Vanlandschoot A;
XX
DR   WPI; 2002-062246/08.
DR   P-PSDB; AAU73247.
XX
PT   New polypeptide,  useful for treating skin carcinoma or acantholytic
PT   disease such as Grover's and Darier's disease, comprises a protein
PT   interacting with human plakoglobin and involved in transduction of
PT   plakoglobin related signal to nucleus -
XX
PS   Claim 7; Figure 3; 98pp; English.
XX
CC   The invention relates to an isolated plakoglobin interacting polypeptide
CC   (I). (I) is useful as a medicament and in the manufacture of a
CC   medicament for treating plakoglobin related diseases, such as skin
CC   carcinoma or an acantholytic disease, and to screen compounds that
CC   interfere with the interaction of the polypeptide with plakoglobin
CC   The plakoglobin related diseases include basal cell carcinoma, squamous
CC   cell carcinoma, extramammary Paget's disease, Naxos disease, heart
CC   diseases, skin blistering and acantholytic diseases such as subcorneal
CC   acantholysis, Grover's disease, Hailey-Hailey's disease or Darier's
CC   disease, and ectodermal dysplasia/skin fragility syndrome. AAS98201-
CC   AAS98288 represent novel human plakoglobin interacting protein
CC   coding sequences and PCR primers of the invention.
XX
SQ   Sequence 3948 BP; 717 A; 1218 C; 1327 G; 686 T; 0 other;

  Query Match           41.1%;  Score 113.4;  DB 24;  Length 3948;
  Best Local Similarity   63.3%;  Pred. No. 1.6e-15;
  Matches  174;  Conservative    0;  Mismatches  101;  Indels    0;  Gaps    0;

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Db        114 GAGGACGCGCTGTGGGAGCGAATCGAGGGCGTCCGGCATCGGCTGGCTCGCGCCCTGAAC 173

Qy         61 CCCAGCCGCCTCACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAG 120
              ||    |  |||||  ||  || |||||||||  |  |||  |    | |||  ||||||||||
Db        174 CCGGCCAAGCTCACGCCGTATCTGCGCCAGTGCCGGGTCATCGACGAGCAGGACGAGGAG 233

Qy        121 GAGGTGCTGCACAGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGAT 180
              ||||||||  ||  |  |||  ||  |  |||  ||  ||  ||||||  |  ||  ||||
Db        234 GAGGTGCTGAGCACCTACCGCTTCCCGTGCCGCGTCAACCGCACCGGGCGCCTGATGGAC 293

Qy        181 TTGCTGAAGACTCGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCAC 240
              |  ||       ||  ||  ||||  ||          ||||||||||   ||||  |||||  ||
Db        294 ATCTTGCGCTGCCGTGGCAAGAGGGGCTATGAGGCCTTCCTGGAAGCCCTGGAGTTCTAC 353

Qy        241 AACCCTGACGTCTACACCCTGGTCACCGGGCTGCA 275
              ||||  ||   ||  |||  |||  ||||  ||  |  |  |
Db        354 TACCCCGAACACTTCACGCTGCTCACGGGCCAGGA 388


RESULT 5
AAS05388
ID   AAS05388 standard; cDNA; 3949 BP.
XX
AC   AAS05388;
XX
DT   12-SEP-2001  (first entry)
XX
DE   Human caspase recruitment domain, CARD-10 cDNA sequence.
XX
KW   Human; caspase recruitment domain; CARD-10; Bcl-10; NF-kappaB;
KW   apoptosis; hyperproliferative disorder; autoimmune; neurological;
KW   inflammatory disorder; viral infection; stress-related response; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   CDS             41..3139
FT                   /*tag=  a
FT                   /product= "CARD-10"
FT                   /note= "ORF is specifically claimed"
XX
PN   WO200140468-A2.
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PD   07-JUN-2001.
XX
PF   01-DEC-2000; 2000WO-US32716.
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PR   03-DEC-1999;   99US-0168780.
PR   18-FEB-2000; 2000US-0507533.
PR   25-FEB-2000; 2000US-0513904.
PR   10-OCT-2000; 2000US-0685791.
XX
PA   (MILL-) MILLENNIUM PHARM INC.
XX
PI   Bertin J;
XX
DR   WPI; 2001-367809/38.
DR   P-PSDB; AAU01206.
XX
PT   Novel caspase recruitment domain (CARD) proteins, CARD-9, CARD-10,
PT   CARD-11, useful as targets for therapy, as immunogens, and in screening
```

```
PT   and detection assays -
XX
PS   Claim 2; Fig 10A-10C; 145pp; English.
XX
CC   The present sequence encoding for novel human caspase recruitment
CC   domain, CARD-10 is isolated from a human skin cDNA library.
CC   Also described are novel human sequences for CARD-9 and CARD-11
CC   (AAU01205, AAU01207) and rat CARD-9 (AAU01204). CARD-9, CARD-10 and
CC   CARD-11 interact with Bcl-10 which is thought to activate nuclear factor
CC   (NF)-kappaB and apoptosis. The sequences of the invention can be used for
CC   treating a disorder associated with abnormal levels of apoptosis by
CC   modulating the expression or activity of CARD-9, CARD-10, or CARD-11.
CC   They can be used for the treatment of hyperproliferative disorders
CC   (e.g. cancer), autoimmune disorders (e.g. systemic lupus erythematosus),
CC   neurological disorders (e.g. Alzheimer's disease), inflammatory disorders
CC   (e.g. Crohn's disease), and viral infection (e.g. HIV). The CARD
CC   polypeptide, polynucleotide and an antibody which selectively binds to
CC   CARD can be used in screening and detection assays (e.g. chromosomal
CC   mapping, tissue typing), predictive medicine (prognostic assays,
CC   monitoring clinical trials, and therapy (treatment and prophylaxis). The
CC   CARD polypeptide may be used to screen for drugs that bind to and/or
CC   modulate it. CARD sequences are potential targets for regulating
CC   inflammation, cancer, NF-kappaB signalling, stress-related response and
CC   apoptosis in human disease. A host cell containing a polynucleotide
CC   encoding CARD can be used to create transgenic animals.
XX
SQ   Sequence 3949 BP; 724 A; 1222 C; 1319 G; 684 T; 0 other;

  Query Match             41.1%;  Score 113.4;  DB 22;  Length 3949;
  Best Local Similarity   63.3%;  Pred. No. 1.6e-15;
  Matches  174;  Conservative    0;  Mismatches  101;  Indels    0;  Gaps    0;

Qy          1 GAGGAGACACTGTGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGC 60
              |||||  | |||||||||   || ||| ||  ||| ||  || | |  |||  | |   |
Db        110 GAGGACGCGCTGTGGGAGCGAATCGAGGGCGTCCGGCATCGGCTGGCTCGCGCCCTGAAC 169

Qy         61 CCCAGCCGCCTCACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAG 120
              ||   |  ||||| || || |||||||||  |  |||  |   | ||| ||||||||||
Db        170 CCGGCCAAGCTCACGCCGTATCTGCGCCAGTGCCGGGTCATCGACGAGCAGGACGAGGAG 229

Qy        121 GAGGTGCTGCACAGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGAT 180
              |||||||||  || |  |||  || |   | ||| ||  ||  |||||| | || ||||
Db        230 GAGGTGCTGAGCACCTACCGCTTCCCGTGCCGCGTCAACCGCACCGGGCGCCTGATGGAC 289

Qy        181 TTGCTGAAGACTCGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCAC 240
              | ||     || || ||||  ||       ||||||||||  |||| |||||  ||
Db        290 ATCTTGCGCTGCCGTGGCAAGAGGGGCTATGAGGCCTTCCTGGAAGCCCTGGAGTTCTAC 349

Qy        241 AACCCTGACGTCTACACCCTGGTCACCGGGCTGCA 275
              |||| ||   || ||| ||| |||| || | | |
Db        350 TACCCCGAACACTTCACGCTGCTCACGGGCCAGGA 384


RESULT 6
ABA00333
ID   ABA00333 standard; cDNA; 3949 BP.
XX
AC   ABA00333;
XX
DT   09-DEC-2002  (first entry)
XX
DE   Human CARD-10 cDNA.
XX
KW   Gene; rat; human; caspase recruitment domain; CARD-9; CARD-10;
KW   CARD-11; apoptosis; inflammation; cell growth; cell death;
KW   lymphocyte activation; cancer; melanoma; autoimmune disease;
KW   arthritis; neurological disorder; Alzheimer's disease; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   CDS             41..3139
FT                   /*tag=  a
FT                   /product= "CARD-10"
XX
PN   WO200270652-A2.
XX
PD   12-SEP-2002.
XX
PF   28-FEB-2002; 2002WO-US06147.
XX
PR   02-MAR-2001; 2001US-0798412.
XX
PA   (MILL-) MILLENNIUM PHARM INC.
XX
PI   Bertin J;
XX
DR   WPI; 2002-698749/75.
DR   P-PSDB; AAG79554.
XX
PT   CARD-9, CARD-10 or CARD-11 polypeptides and polynucleotides, useful for
PT   treating disorders associated with inappropriate apoptosis or
PT   lymphocyte activation, e.g. cancer  -
XX
PS   Claim 5; Fig 10; 151pp; English.
XX
CC   This sequence encodes human caspase recruitment domain (CARD)-10.
CC   CARD proteins play roles in apoptotic and inflammatory signalling
CC   pathways.  CARD-9, -10 and -11 participate in the network of
CC   interactions that modulate caspase activity.  They are thought to be
CC   useful as modulating agents for regulating a variety of cellular
CC   processes including cell growth and cell death.  CARD proteins and
CC   nucleic acids are useful for treating a disorder associated with
CC   inappropriate apoptosis or lymphocyte activation or for diagnosing
CC   subjects having or that are at risk of developing a disorder associated
CC   with aberrant CARD-9, CARD-10 or CARD-11 expression or activity, such
CC   as cancer e.g. melanoma, autoimmune disorders e.g. arthritis, or
CC   neurological disorders e.g. Alzheimer's disease.
XX
SQ   Sequence 3949 BP; 724 A; 1222 C; 1319 G; 684 T; 0 other;

  Query Match             41.1%;  Score 113.4;  DB 24;  Length 3949;
  Best Local Similarity   63.3%;  Pred. No. 1.6e-15;
  Matches  174;  Conservative    0;  Mismatches  101;  Indels    0;  Gaps    0;

Qy          1 GAGGAGACACTGTGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGC 60
              |||||  | |||||||||   || ||| ||  ||| ||  || | |  |||  | |   |
Db        110 GAGGACGCGCTGTGGGAGCGAATCGAGGGCGTCCGGCATCGGCTGGCTCGCGCCCTGAAC 169

Qy         61 CCCAGCCGCCTCACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAG 120
              ||   |  ||||| || || |||||||||  |  |||  |   | ||| ||||||||||
Db        170 CCGGCCAAGCTCACGCCGTATCTGCGCCAGTGCCGGGTCATCGACGAGCAGGACGAGGAG 229

Qy        121 GAGGTGCTGCACAGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGAT 180
              |||||||||  || |  |||  || |   | ||| ||  ||  |||||| | || ||||
Db        230 GAGGTGCTGAGCACCTACCGCTTCCCGTGCCGCGTCAACCGCACCGGGCGCCTGATGGAC 289

Qy        181 TTGCTGAAGACTCGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCAC 240
              | ||     || || ||||  ||       ||||||||||  |||| |||||  ||
Db        290 ATCTTGCGCTGCCGTGGCAAGAGGGGCTATGAGGCCTTCCTGGAAGCCCTGGAGTTCTAC 349

Qy        241 AACCCTGACGTCTACACCCTGGTCACCGGGCTGCA 275
              |||| ||   || ||| ||| |||| || | | |
Db        350 TACCCCGAACACTTCACGCTGCTCACGGGCCAGGA 384


RESULT 7
ABX11430
ID   ABX11430 standard; cDNA; 3744 BP.
XX
AC   ABX11430;
XX
DT   09-MAY-2003  (first entry)
XX
DE   Human caspase recruitment domain containing protein, CARD-11X, cDNA.
XX
```

```
KW   CARD; caspase recruitment domain; apoptosis; cell adhesion; inflammation;
KW   cytokine receptor signalling; cancer; glioma; carcinoma; adenocarcinoma;
KW   CARD-containing polypeptide associated disorder; sarcoma; melanoma; ss;
KW   hamartoma; leukaemia; lymphoma; keratinocyte hyperplasia; neoplasia;
KW   keloid; benign prostatic hypertrophy; inflammatory hyperplasia; fibrosis;
KW   restenosis; allergy; arthritis; lupus; Sjogren's syndrome; sepsis; gene;
KW   Crohn's disease; ulcerative colitis; graft versus host disease; stroke;
KW   abnormal cell death disease; myocardial infarction; heart failure; human;
KW   neurodegenerative disease; Parkinson's disease; Alzheimer's disease; HIV;
KW   CARD-11X; caspase activator; caspase inhibitor.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   CDS             1..3744
FT                   /*tag=  a
FT                   /product= "CARD-11X"
FT   misc_feature    34..309
FT                   /*tag=  b
FT                   /note= "Encodes caspase recruitment domain (CARD)"
FT   misc_feature    388..1344
FT                   /*tag=  c
FT                   /note= "Encodes Ezrin/radixin/moiesin (ERM) domain"
FT   misc_feature    2175..2514
FT                   /*tag=  d
FT                   /note= "Encodes post synaptic density disc-large zo-1
FT                          (PDZ) domain"
XX
PN   US2002164703-A1.
XX
PD   07-NOV-2002.
XX
PF   19-DEC-2001; 2001US-0032159.
XX
PR   21-DEC-2000; 2000US-257457P.
XX
PA   (PAWL/) PAWLOWSKI K.
PA   (REED/) REED J C.
PA   (GODZ/) GODZIK A.
XX
PI   Pawlowski K,  Reed JC,  Godzik A;
XX
DR   WPI; 2003-288137/28.
DR   P-PSDB; ABG76061.
XX
PT   New isolated CARD-containing nucleic acids, useful for the diagnosis
PT   and treatment of disorders with aberrant expression or activity of the
PT   CARD-containing polypeptide, such as cancer, stroke, arthritis, heart
PT   failure and AIDS  -
XX
PS   Claim 1; Fig 2; 34pp; English.
XX
CC   The invention relates to an isolated nucleic acid molecule encoding a
CC   caspase recruitment domain (CARD) containing polypeptide. CARD containing
CC   polypeptides are involved in apoptosis (as caspase activators and caspase
CC   inhibitors), cell adhesion, inflammation and cytokine receptor
CC   signalling. The methods and compositions of the present invention are
CC   useful for the diagnosis and treatment of disorders associated with the
CC   aberrant expression or activity of the CARD containing polypeptide such
CC   as cancer, glioma, carcinoma, adenocarcinoma, sarcoma, melanoma, keloid,
CC   hamartoma, leukaemia, lymphoma, keratinocyte hyperplasia, neoplasia,
CC   benign prostatic hypertrophy, inflammatory hyperplasia, fibrosis,
CC   restenosis, allergies, inflammatory diseases such as arthritis, lupus,
CC   Sjogren's syndrome, Crohn's disease, ulcerative colitis, graft versus
CC   host disease, sepsis, abnormal cell death diseases such as stroke,
CC   myocardial infarction, heart failure, neurodegenerative diseases like
CC   Parkinson's disease and Alzheimer's disease, and HIV infection. The
CC   present sequence represents cDNA encoding the human caspase recruitment
CC   domain containing protein, CARD-11X.
XX
SQ   Sequence 3744 BP; 950 A; 1076 C; 1117 G; 601 T; 0 other;

  Query Match           36.4%;  Score 100.4;  DB 25;  Length 3744;
  Best Local Similarity   60.7%;  Pred. No. 1e-12;
  Matches  164;  Conservative    0;  Mismatches  106;  Indels    0;  Gaps    0;

Qy          1 GAGGAGACACTGTGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGC 60
              |||||  |  |||||||||   |||||  |  ||||  ||||  |  ||   ||||  |||  |
Db         34 GAGGACGCCTTGTGGGAGAATGTGGAGTGTAACCGGCACATGCTCAGCCGCTATATCAAC 93

Qy         61 CCCAGCCGCCTCACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAG 120
              ||    |  |||||  ||||||||||| |||   |||||  |      |||  |||  ||  ||
Db         94 CCTGCCAAGCTCACGCCCTACCTGCGTCAGTGTAAGGTCATTGATGAGCAGGATGAAGAT 153

Qy        121 GAGGTGCTGCACAGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGAT 180
              ||  |||||  |  |||  |||  |  ||  ||  ||  ||  ||  |  ||  ||||
Db        154 GAAGTGCTTAATGCCCCTATGCTGCCATCCAAGATCAACCGAGCAGGCCGGCTGTTGGAC 213

Qy        181 TTGCTGAAGACTCGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCAC 240
              | ||  | ||   |||  | |  ||      | | ||||  ||||||||||  |  ||  |
Db        214 ATTCTACATACCAAGGGGCAAAGGGGCTATGTGGTCTTCTTGGAGAGCCTAGAATTTTAT 273

Qy        241 AACCCTGACGTCTACACCCTGGTCACCGGG 270
              ||||  ||  | ||||  |||||  ||  |||
Db        274 TACCCAGAACTGTACAAACTGGTGACTGGG 303


RESULT 8
AAS05389
ID   AAS05389 standard; cDNA; 4275 BP.
XX
AC   AAS05389;
XX
DT   12-SEP-2001  (first entry)
XX
DE   Human caspase recruitment domain, CARD-11 cDNA sequence.
XX
KW   Human; caspase recruitment domain; CARD-11; Bcl-10; NF-kappaB;
KW   apoptosis; hyperproliferative disorder; autoimmune; neurological;
KW   inflammatory disorder; viral infection; stress-related response; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   CDS             327..3770
FT                   /*tag=  a
FT                   /product= "CARD-11"
FT                   /note= "ORF is specifically claimed"
XX
PN   WO200140468-A2.
XX
PD   07-JUN-2001.
XX
PF   01-DEC-2000; 2000WO-US32716.
XX
PR   03-DEC-1999;   99US-0168780.
PR   18-FEB-2000; 2000US-0507533.
PR   25-FEB-2000; 2000US-0513904.
PR   10-OCT-2000; 2000US-0685791.
XX
PA   (MILL-) MILLENNIUM PHARM INC.
XX
PI   Bertin J;
XX
DR   WPI; 2001-367809/38.
DR   P-PSDB; AAU01207.
XX
PT   Novel caspase recruitment domain (CARD) proteins, CARD-9, CARD-10,
PT   CARD-11, useful as targets for therapy, as immunogens, and in screening
PT   and detection assays -
XX
PS   Claim 2; Fig 14A-14C; 145pp; English.
XX
CC   The present sequence encoding for novel human caspase recruitment
CC   domain, CARD-11 is isolated from a human T-cell cDNA library.
CC   Also described are novel human sequences for CARD-9 and CARD-10
```

```
CC   (AAU01205, AAU01206) and rat CARD-9 (AAU01204). CARD-9, CARD-10 and
CC   CARD-11 interact with Bcl-10 which is thought to activate nuclear factor
CC   (NF)-kappaB and apoptosis. The sequences of the invention can be used for
CC   treating a disorder associated with abnormal levels of apoptosis by
CC   modulating the expression or activity of CARD-9, CARD-10, or CARD-11.
CC   They can be used for the treatment of hyperproliferative disorders
CC   (e.g. cancer), autoimmune disorders (e.g. systemic lupus erythematosus),
CC   neurological disorders (e.g. Alzheimer's disease), inflammatory disorders
CC   (e.g. Crohn's disease), and viral infection (e.g. HIV). The CARD
CC   polypeptide, polynucleotide and an antibody which selectively binds to
CC   CARD can be used in screening and detection assays (e.g. chromosomal
CC   mapping, tissue typing), predictive medicine (prognostic assays,
CC   monitoring clinical trials, and therapy (treatment and prophylaxis). The
CC   CARD polypeptide may be used to screen for drugs that bind to and/or
CC   modulate it. CARD sequences are potential targets for regulating
CC   inflammation, cancer, NF-kappaB signalling, stress-related response and
CC   apoptosis in human disease. A host cell containing a polynucleotide
CC   encoding CARD can be used to create transgenic animals.
XX
SQ   Sequence 4275 BP; 1045 A; 1255 C; 1320 G; 655 T; 0 other;

  Query Match            36.4%;  Score 100.4;  DB 22;  Length 4275;
  Best Local Similarity  60.7%;  Pred. No. 1e-12;
  Matches  164;  Conservative    0;  Mismatches  106;  Indels    0;  Gaps    0;

Qy          1 GAGGAGACACTGTGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGC 60
              |||||  |  |||||||||   |||||  |  ||||  ||||  |  ||   ||||  |||  |
Db        360 GAGGACGCCTTGTGGGAGAATGTGGAGTGTAACCGGCACATGCTCAGCCGCTATATCAAC 419

Qy         61 CCCAGCCGCCTCACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAG 120
              ||   |   ||||| ||||||||||| |||   |||||  |     ||| ||| || ||
Db        420 CCTGCCAAGCTCACGCCCTACCTGCGTCAGTGTAAGGTCATTGATGAGCAGGATGAAGAT 479

Qy        121 GAGGTGCTGCACAGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGAT 180
              || |||||  |   |||   |||  |   ||    ||  || || ||  |   || ||||
Db        480 GAAGTGCTTAATGCCCCTATGCTGCCATCCAAGATCAACCGAGCAGGCCGGCTGTTGGAC 539

Qy        181 TTGCTGAAGACTCGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCAC 240
                | ||  | ||    |||  |  |  ||     | | |||| ||||||||||  | ||  |
Db        540 ATTCTACATACCAAGGGGCAAAGGGGCTATGTGGTCTTCTTGGAGAGCCTAGAATTTTAT 599

Qy        241 AACCCTGACGTCTACACCCTGGTCACCGGG 270
                |||| ||  | ||||  ||||| || |||
Db        600 TACCCAGAACTGTACAAACTGGTGACTGGG 629


RESULT 9
ABA00334
ID   ABA00334 standard; cDNA; 4276 BP.
XX
AC   ABA00334;
XX
DT   09-DEC-2002  (first entry)
XX
DE   Human CARD-11 cDNA.
XX
KW   Gene; rat; human; caspase recruitment domain; CARD-9; CARD-10;
KW   CARD-11; apoptosis; inflammation; cell growth; cell death;
KW   lymphocyte activation; cancer; melanoma; autoimmune disease;
KW   arthritis; neurological disorder; Alzheimer's disease; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   CDS             328..3771
FT                   /*tag=  a
FT                   /product= "CARD-11"
XX
PN   WO200270652-A2.
XX
PD   12-SEP-2002.
XX
PF   28-FEB-2002; 2002WO-US06147.
XX
PR   02-MAR-2001; 2001US-0798412.
XX
PA   (MILL-) MILLENNIUM PHARM INC.
XX
PI   Bertin J;
XX
DR   WPI; 2002-698749/75.
DR   P-PSDB; AAG79555.
XX
PT   CARD-9, CARD-10 or CARD-11 polypeptides and polynucleotides, useful for
PT   treating disorders associated with inappropriate apoptosis or
PT   lymphocyte activation, e.g. cancer  -
XX
PS   Disclosure; Fig 14; 151pp; English.
XX
CC   This sequence encodes human caspase recruitment domain (CARD)-11.
CC   CARD proteins play roles in apoptotic and inflammatory signalling
CC   pathways.  CARD-9, -10 and -11 participate in the network of
CC   interactions that modulate caspase activity.  They are thought to be
CC   useful as modulating agents for regulating a variety of cellular
CC   processes including cell growth and cell death.  CARD proteins and
CC   nucleic acids are useful for treating a disorder associated with
CC   inappropriate apoptosis or lymphocyte activation or for diagnosing
CC   subjects having or that are at risk of developing a disorder associated
CC   with aberrant CARD-9, CARD-10 or CARD-11 expression or activity, such
CC   as cancer e.g. melanoma, autoimmune disorders e.g. arthritis, or
CC   neurological disorders e.g. Alzheimer's disease.
XX
SQ   Sequence 4276 BP; 1045 A; 1256 C; 1320 G; 655 T; 0 other;

  Query Match            36.4%;  Score 100.4;  DB 24;  Length 4276;
  Best Local Similarity  60.7%;  Pred. No. 1e-12;
  Matches  164;  Conservative    0;  Mismatches  106;  Indels    0;  Gaps    0;

Qy          1 GAGGAGACACTGTGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGC 60
              |||||  |  |||||||||   |||||  |  ||||  ||||  |  ||   ||||  |||  |
Db        361 GAGGACGCCTTGTGGGAGAATGTGGAGTGTAACCGGCACATGCTCAGCCGCTATATCAAC 420

Qy         61 CCCAGCCGCCTCACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAG 120
              ||   |   ||||| ||||||||||| |||   |||||  |     ||| ||| || ||
Db        421 CCTGCCAAGCTCACGCCCTACCTGCGTCAGTGTAAGGTCATTGATGAGCAGGATGAAGAT 480

Qy        121 GAGGTGCTGCACAGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGAT 180
              || |||||  |   |||   |||  |   ||    ||  || || ||  |   || ||||
Db        481 GAAGTGCTTAATGCCCCTATGCTGCCATCCAAGATCAACCGAGCAGGCCGGCTGTTGGAC 540

Qy        181 TTGCTGAAGACTCGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCAC 240
                | ||  | ||    |||  |  |  ||     | | |||| ||||||||||  | ||  |
Db        541 ATTCTACATACCAAGGGGCAAAGGGGCTATGTGGTCTTCTTGGAGAGCCTAGAATTTTAT 600

Qy        241 AACCCTGACGTCTACACCCTGGTCACCGGG 270
                |||| ||  | ||||  ||||| || |||
Db        601 TACCCAGAACTGTACAAACTGGTGACTGGG 630


RESULT 10
AAC75276/c
ID   AAC75276 standard; cDNA; 524 BP.
XX
AC   AAC75276;
XX
DT   08-FEB-2001  (first entry)
XX
DE   Human ORFX ORF831 polynucleotide sequence SEQ ID NO:1661.
XX
KW   Human; open reading frame; ORFX; detection; cytostatic; hepatotropic;
KW   vulnerary; antipsoriatic; antiparkinsonian; nootropic; neuroprotective;
KW   anticonvulsant; osteopathic; antiarthritic; immunosuppressant; cardiant;
KW   immunostimulant; thrombolytic; coagulant; vasotropic; antidiabetic;
KW   hypotensive; dermatological; immunosuppressive; antiinflammatory;
KW   antiviral; antibacterial; antifungal; antirheumatic; antithyroid;
KW   antianaemic; gene therapy; cancer; proliferative disorder; hypertension;
```

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KW   neurodegenerative disorder; osteoarthritis; graft vs host disease;
KW   cardiovascular disease; diabetes mellitus; hypothyroidism; SCID; AIDS;
KW   cholesterol ester storage; systemic lupus erythematosus; infection;
KW   severe combined immunodeficiency; malaria; autoimmune disorder; asthma;
KW   allergy; aplastic anaemia; nocturnal haemoglobinuria; burn; wound;
KW   bone damage; cartilage damage; antiinflammatory disease; coagulation;
KW   thrombosis; contraceptive; ss.
XX
OS   Homo sapiens.
XX
PN   WO200058473-A2.
XX
PD   05-OCT-2000.
XX
PF   31-MAR-2000; 2000WO-US08621.
XX
PR   31-MAR-1999;   99US-0127607.
PR   02-APR-1999;   99US-0127636.
PR   05-APR-1999;   99US-0127728.
PR   30-MAR-2000; 2000US-0540763.
XX
PA   (CURA-) CURAGEN CORP.
XX
PI   Shimkets RA,  Leach M;
XX
DR   WPI; 2000-602362/57.
DR   P-PSDB; AAB41067.
XX
PT   Novel nucleic acids and peptides derived from open reading frame X,
PT   useful for treating e.g. cancers, proliferative disorders,
PT   neurodegenerative disorders and cardiovascular disease -
XX
PS   Claim 5; Page 1326; 5507pp; English.
XX
CC   AAC74446 to AAC77606 encode the proteins given in AAB40237 to AAB43397,
CC   which represent the human ORFX open reading frames 1 to 3161. The ORFX
CC   sequences have activities such as: cytostatic; hepatotropic; vulnerary;
CC   antipsoriatic; antiparkinsonian; nootropic; neuroprotective;
CC   osteopathic; anticonvulsant; antiarthritic; immunosuppressant;
CC   immunostimulant; cardiant; thrombolytic; coagulant; vasotropic;
CC   antidiabetic; hypotensive; dermatological; immunosuppressive;
CC   antiinflammatory; antibacterial; antiviral; antifungal; antirheumatic;
CC   antithyroid; and antianaemic. The sequences can be used for determining
CC   the presence of or predisposition to, or preventing or treating
CC   pathological conditions associated with an ORFX-associated disorder. The
CC   nucleic acids can be used to express ORFX proteins in gene therapy
CC   vectors. The proteins and nucleic acids may be used to treat cancers,
CC   proliferative disorders, neurodegenerative disorders, osteoarthritis,
CC   graft vs host disease, cardiovascular disease, diabetes mellitus,
CC   hypertension, hypothyroidism, cholesterol ester storage, systemic lupus
CC   erythematosus, severe combined immunodeficiency (SCID), AIDS, viral,
CC   bacterial or fungal infection, malaria, autoimmune disorders, asthma,
CC   allergies, aplastic anaemia, burns, wounds, bone and cartilage damage,
CC   nocturnal haemoglobinuria, antiinflammatory disease; to enhance
CC   coagulation; to inhibit thrombosis; and as a contraceptive.
XX
SQ   Sequence 524 BP; 87 A; 165 C; 171 G; 101 T; 0 other;

  Query Match           31.9%;  Score 88;  DB 21;  Length 524;
  Best Local Similarity  58.3%;  Pred. No. 4.1e-10;
  Matches  154;  Conservative    0;  Mismatches  110;  Indels    0;  Gaps    0;

Qy         13 TGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGCCCCAGCCGCCTC 72
              |||  |   |  ||||| ||  |||     | | ||         ||||  ||||   ||| ||
Db        298 TGGAACGTCCTGGAGGGCTTCCGGGTGACGCTCACCTCGGTCATCGACCCCTCACGCATC 239

Qy         73 ACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAGGAGGTGCTGCAC 132
              || || |||||||| |||  |||||| |||  ||      || |||||| |||||||    |
Db        238 ACACCTTACCTGCGGCAGTGCAAGGTCCTGAACCCTGATGATGAGGAGCAGGTGCTCAGC 179

Qy        133 AGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGATTTGCTGAAGACT 192
                ||||    ||   || | ||      |   |  ||      | |||||  | |||  ||
Db        178 GACCCCAACCTGGTCATCCGCAAACGGAAAGTGGGTGTGCTCCTGGACATCCTGCAGCGG 119

Qy        193 CGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCACAACCCTGACGTC 252
                 ||  | || ||   | | |||||||| |||||||| || || || ||||  |  |
Db        118 ACCGGCCACAAGGGCTACGTGGCCTTCCTCGAGAGCCTGGAGCTCTACTACCCGCAGCTG 59

Qy        253 TACACCCTGGTCACCGGGCTGCAG 276
                ||||    ||||||  ||   | ||
Db         58 TACAAGAAGGTCACAGGCAAGGAG 35


RESULT 11
ABN26534/c
ID   ABN26534 standard; cDNA; 524 BP.
XX
AC   ABN26534;
XX
DT   24-JUN-2002  (first entry)
XX
DE   Human ORFX polynucleotide sequence SEQ ID NO:21545.
XX
KW   Human; open reading frame; ORFX; gene therapy; cancer; cirrhosis;
KW   hyperproliferative disorder; psoriasis; benign tumour; haemorrhage;
KW   degenerative disorder; osteoarthritis; neurodegenerative disorder;
KW   cardiovascular disease; diabetes mellitus; systemic lupus erythematosus;
KW   hypertension; hypothyroidism; cholesterol ester storage disease;
KW   immune deficiency; immune disorder; infectious disease;
KW   autoimmune disorder; rheumatoid arthritis; autoimmune thyroiditis;
KW   myasthenia gravis; gene; ss.
XX
OS   Homo sapiens.
XX
PN   WO200192523-A2.
XX
PD   06-DEC-2001.
XX
PF   29-MAY-2001; 2001WO-US10836.
XX
PR   30-MAY-2000; 2000US-206132P.
PR   29-AUG-2000; 2000US-228716P.
XX
PA   (CURA-) CURAGEN CORP.
XX
PI   Shimkets RA,  Leach MD;
XX
DR   WPI; 2002-106308/14.
DR   P-PSDB; ABP10782.
XX
PT   Novel human polypeptides and polynucleotides useful for diagnosing,
PT   preventing and treating cardiovascular disease, neurodegenerative,
PT   hyperproliferative disorders and autoimmune disorders  -
XX
PS   Disclosure; SEQ ID 21545; 1037pp; English.
XX
CC   The present invention describes substantially purified human proteins
CC   (referred to as open reading frame, ORFX, where X is 1-11491 (see Table 1
CC   in the specification). ABN15762 to ABN27252 encode the human ORFX
CC   proteins given in ABP00010 to ABP11500. ORFX proteins are useful for
CC   treating or preventing a pathology associated with an ORFX-associated
CC   disorder in humans, and in the manufacture of a medicament for treating a
CC   syndrome associated with ORFX-associated disorder. ORFX polynucleotide
CC   sequences can be used in gene therapy. ORFX sequences can be used in the
CC   treatment of cancer, hyperproliferative disorders, cirrhosis of liver,
CC   psoriasis, benign tumours, keloid, degenerative disorders, haemorrhage,
CC   osteoarthritis, neurodegenerative disorders, disorders related to organ
CC   transplantation, cardiovascular diseases, diabetes mellitus, systemic
CC   lupus erythematosus, hypertension, hypothyroidism, cholesterol ester
CC   storage disease, various immune deficiencies and disorders, infectious
CC   diseases, autoimmune disorders such as multiple sclerosis, rheumatoid
CC   arthritis, autoimmune thyroiditis, myasthenia gravis, graft-versus-host
CC   disease and autoimmune inflammatory eye disease. ORFX proteins are also
CC   useful for treating burns, incisions, ulcers, for treating osteoporosis,
CC   bone degenerative disorders, or periodontal disease, and for gut
CC   protection or regeneration and treatment of lung or liver fibrosis,
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CC   reperfusion injury in various tissues and conditions resulting from
CC   systemic cytokine damage.
CC   N.B.  The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 524 BP; 87 A; 165 C; 171 G; 101 T; 0 other;

  Query Match             31.9%;  Score 88;  DB 24;  Length 524;
  Best Local Similarity   58.3%;  Pred. No. 4.1e-10;
  Matches  154;  Conservative    0;  Mismatches  110;  Indels    0;  Gaps    0;

Qy         13 TGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGCCCCAGCCGCCTC 72
              ||| |  |  ||||| ||  |||    | | ||        ||||  ||||   ||| ||
Db        298 TGGAACGTCCTGGAGGGCTTCCGGGTGACGCTCACCTCGGTCATCGACCCCTCACGCATC 239

Qy         73 ACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAGGAGGTGCTGCAC 132
              || || |||||||| ||| |||||| ||| ||      || |||||| |||||||   |
Db        238 ACACCTTACCTGCGGCAGTGCAAGGTCCTGAACCCTGATGATGAGGAGCAGGTGCTCAGC 179

Qy        133 AGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGATTTGCTGAAGACT 192
                ||||   ||   || | ||     |   |  ||     | |||||  | ||| ||
Db        178 GACCCCAACCTGGTCATCCGCAAACGGAAAGTGGGTGTGCTCCTGGACATCCTGCAGCGG 119

Qy        193 CGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCACAACCCTGACGTC 252
                 || | ||| ||   | | |||||||| |||||||| || || || ||||  |  |
Db        118 ACCGGCCACAAGGGCTACGTGGCCTTCCTCGAGAGCCTGGAGCTCTACTACCCGCAGCTG 59

Qy        253 TACACCCTGGTCACCGGGCTGCAG 276
                ||||   |||||| ||   | ||
Db         58 TACAAGAAGGTCACAGGCAAGGAG 35


RESULT 12
AAH08620
ID   AAH08620 standard; cDNA; 765 BP.
XX
AC   AAH08620;
XX
DT   26-JUN-2001  (first entry)
XX
DE   Human cDNA clone (5'-primer) SEQ ID NO:5455.
XX
KW   Human; primer; detection; diagnosis; antisense therapy; gene therapy; ss.
XX
OS   Homo sapiens.
XX
PN   EP1074617-A2.
XX
PD   07-FEB-2001.
XX
PF   28-JUL-2000; 2000EP-0116126.
XX
PR   29-JUL-1999;   99JP-0248036.
PR   27-AUG-1999;   99JP-0300253.
PR   11-JAN-2000; 2000JP-0118776.
PR   02-MAY-2000; 2000JP-0183767.
PR   09-JUN-2000; 2000JP-0241899.
XX
PA   (HELI-) HELIX RES INST.
XX
PI   Ota T,  Isogai T,  Nishikawa T,  Hayashi K,  Saito K,  Yamamoto J;
PI   Ishii S,  Sugiyama T,  Wakamatsu A,  Nagai K,  Otsuki T;
XX
DR   WPI; 2001-318749/34.
XX
PT   Primer sets for synthesizing polynucleotides, particularly the 5602
PT   full-length cDNAs defined in the specification, and for the detection
PT   and/or diagnosis of the abnormality of the proteins encoded by the
PT   full-length cDNAs -
XX
PS   Claim 1; SEQ ID 5455; 2537pp + CD ROM; English.
XX
CC   The present invention describes primer sets for synthesising 5602
CC   full-length cDNAs defined in the specification. Where a primer set
CC   comprises: (a) an oligo-dT primer and an oligonucleotide complementary
CC   to the complementary strand of a polynucleotide which comprises one of
CC   the 5602 nucleotide sequences defined in the specification, where the
CC   oligonucleotide comprises at least 15 nucleotides; or (b) a combination
CC   of an oligonucleotide comprising a sequence complementary to the
CC   complementary strand of a polynucleotide which comprises a 5'-end
CC   sequence and an oligonucleotide comprising a sequence complementary to a
CC   polynucleotide which comprises a 3'-end sequence, where the
CC   oligonucleotide comprises at least 15 nucleotides and the combination of
CC   the 5'-end sequence/3'-end sequence is selected from those defined in
CC   the specification. The primer sets can be used in antisense therapy and
CC   in gene therapy. The primers are useful for synthesising polynucleotides,
CC   particularly full-length cDNAs. The primers are also useful for the
CC   detection and/or diagnosis of the abnormality of the proteins encoded by
CC   the full-length cDNAs. The primers allow obtaining of the full-length
CC   cDNAs easily without any specialised methods. AAH03166 to AAH13628 and
CC   AAH13633 to AAH18742 represent human cDNA sequences; AAB92446 to
CC   AAB95893 represent human amino acid sequences; and AAH13629 to AAH13632
CC   represent oligonucleotides, all of which are used in the exemplification
CC   of the present invention.
XX
SQ   Sequence 765 BP; 160 A; 236 C; 242 G; 123 T; 4 other;

  Query Match             31.9%;  Score 88;  DB 22;  Length 765;
  Best Local Similarity   58.3%;  Pred. No. 4.2e-10;
  Matches  154;  Conservative    0;  Mismatches  110;  Indels    0;  Gaps    0;

Qy         13 TGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGCCCCAGCCGCCTC 72
              ||| |  |  ||||| ||  |||    | | ||        ||||  ||||   ||| ||
Db        177 TGGAACGTCCTGGAGGGCTTCCGGGTGACGCTCACCTCGGTCATCGACCCCTCACGCATC 236

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Qy        193 CGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCACAACCCTGACGTC 252
                 ||  | || ||   | | |||||||| |||||||| || || || ||||  |  |
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Qy        253 TACACCCTGGTCACCGGGCTGCAG 276
                ||||   |||||| ||   | ||
Db        417 TACAAGAAGGTCACAGGCAAGGAG 440


RESULT 13
AAS05387
ID   AAS05387 standard; cDNA; 2098 BP.
XX
AC   AAS05387;
XX
DT   12-SEP-2001  (first entry)
XX
DE   Human caspase recruitment domain, CARD-9 cDNA sequence.
XX
KW   Human; caspase recruitment domain; CARD-9; Bcl-10; NF-kappaB;
KW   apoptosis; hyperproliferative disorder; autoimmune; neurological;
KW   inflammatory disorder; viral infection; stress-related response; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   CDS             144..1754
FT                   /*tag=  a
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FT                   /note= "ORF is specifically claimed"
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PN   WO200140468-A2.
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PD   07-JUN-2001.
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PF   01-DEC-2000; 2000WO-US32716.
XX
PR   03-DEC-1999;   99US-0168780.
PR   18-FEB-2000; 2000US-0507533.
PR   25-FEB-2000; 2000US-0513904.
PR   10-OCT-2000; 2000US-0685791.
XX
PA   (MILL-) MILLENNIUM PHARM INC.
XX
PI   Bertin J;
XX
DR   WPI; 2001-367809/38.
DR   P-PSDB; AAU01205.
XX
PT   Novel caspase recruitment domain (CARD) proteins, CARD-9, CARD-10,
PT   CARD-11, useful as targets for therapy, as immunogens, and in screening
PT   and detection assays -
XX
PS   Claim 2; Fig 5A-5B; 145pp; English.
XX
CC   The present sequence encoding for novel human caspase recruitment
CC   domain, CARD-9 is isolated from a human megakaryocyte cDNA library.
CC   Also described are novel human sequences for CARD-10 and CARD-11
CC   (AAU01206, AAU01207) and rat CARD-9 (AAU01204). CARD-9, CARD-10 and
CC   CARD-11 interact with Bcl-10 which is thought to activate nuclear factor
CC   (NF)-kappaB and apoptosis. The sequences of the invention can be used for
CC   treating a disorder associated with abnormal levels of apoptosis by
CC   modulating the expression or activity of CARD-9, CARD-10, or CARD-11.
CC   They can be used for the treatment of hyperproliferative disorders
CC   (e.g. cancer), autoimmune disorders (e.g. systemic lupus erythematosus),
CC   neurological disorders (e.g. Alzheimer's disease), inflammatory disorders
CC   (e.g. Crohn's disease), and viral infection (e.g. HIV). The CARD
CC   polypeptide, polynucleotide and an antibody which selectively binds to
CC   CARD can be used in screening and detection assays (e.g. chromosomal
CC   mapping, tissue typing), predictive medicine (prognostic assays,
CC   monitoring clinical trials, and therapy (treatment and prophylaxis). The
CC   CARD polypeptide may be used to screen for drugs that bind to and/or
CC   modulate it. CARD sequences are potential targets for regulating
CC   inflammation, cancer, NF-kappaB signalling, stress-related response and
CC   apoptosis in human disease. A host cell containing a polynucleotide
CC   encoding CARD can be used to create transgenic animals.
XX
SQ   Sequence 2098 BP; 455 A; 644 C; 702 G; 297 T; 0 other;

  Query Match             31.9%;  Score 88;  DB 22;  Length 2098;
  Best Local Similarity   58.3%;  Pred. No. 4.5e-10;
  Matches  154;  Conservative    0;  Mismatches  110;  Indels    0;  Gaps    0;

Qy         13 TGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGCCCCAGCCGCCTC 72
              ||| |  |  ||||| ||  |||    | | ||         ||||  ||||   ||| ||
Db        174 TGGAACGTCCTGGAGGGCTTCCGGGTGACGCTCACCTCGGTCATCGACCCCTCACGCATC 233

Qy         73 ACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAGGAGGTGCTGCAC 132
              || || |||||||| |||  |||||| |||  ||      || |||||| |||||||    |
Db        234 ACACCTTACCTGCGGCAGTGCAAGGTCCTGAACCCTGATGATGAGGAGCAGGTGCTCAGC 293

Qy        133 AGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGATTTGCTGAAGACT 192
                ||||   ||   || | ||      |   | ||      | |||||  | ||| ||
Db        294 GACCCCAACCTGGTCATCCGCAAACGGAAAGTGGGTGTGCTCCTGGACATCCTGCAGCGG 353

Qy        193 CGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCACAACCCTGACGTC 252
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Db        354 ACCGGCCACAAGGGCTACGTGGCCTTCCTCGAGAGCCTGGAGCTCTACTACCCGCAGCTG 413

Qy        253 TACACCCTGGTCACCGGGCTGCAG 276
              ||||   ||||||  ||   | ||
Db        414 TACAAGAAGGTCACAGGCAAGGAG 437

RESULT 14
ABA00332
ID   ABA00332 standard; cDNA; 2098 BP.
XX
AC   ABA00332;
XX
DT   09-DEC-2002  (first entry)
XX
DE   Human CARD-9 cDNA.
XX
KW   Gene; rat; human; caspase recruitment domain; CARD-9; CARD-10;
KW   CARD-11; apoptosis; inflammation; cell growth; cell death;
KW   lymphocyte activation; cancer; melanoma; autoimmune disease;
KW   arthritis; neurological disorder; Alzheimer's disease; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   CDS             144..1754
FT                   /*tag=  a
FT                   /product= "CARD-9"
XX
PN   WO200270652-A2.
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PD   12-SEP-2002.
XX
PF   28-FEB-2002; 2002WO-US06147.
XX
PR   02-MAR-2001; 2001US-0798412.
XX
PA   (MILL-) MILLENNIUM PHARM INC.
XX
PI   Bertin J;
XX
DR   WPI; 2002-698749/75.
DR   P-PSDB; AAG79553.
XX
PT   CARD-9, CARD-10 or CARD-11 polypeptides and polynucleotides, useful for
PT   treating disorders associated with inappropriate apoptosis or
PT   lymphocyte activation, e.g. cancer  -
XX
PS   Disclosure; Fig 5; 151pp; English.
XX
CC   This sequence encodes human caspase recruitment domain (CARD)-9.
CC   CARD proteins play roles in apoptotic and inflammatory signalling
CC   pathways.  CARD-9, -10 and -11 participate in the network of
CC   interactions that modulate caspase activity.  They are thought to be
CC   useful as modulating agents for regulating a variety of cellular
CC   processes including cell growth and cell death.  CARD proteins and
CC   nucleic acids are useful for treating a disorder associated with
CC   inappropriate apoptosis or lymphocyte activation or for diagnosing
CC   subjects having or that are at risk of developing a disorder associated
CC   with aberrant CARD-9, CARD-10 or CARD-11 expression or activity, such
CC   as cancer e.g. melanoma, autoimmune disorders e.g. arthritis, or
CC   neurological disorders e.g. Alzheimer's disease.
XX
SQ   Sequence 2098 BP; 455 A; 644 C; 702 G; 297 T; 0 other;

  Query Match             31.9%;  Score 88;  DB 24;  Length 2098;
  Best Local Similarity   58.3%;  Pred. No. 4.5e-10;
  Matches  154;  Conservative    0;  Mismatches  110;  Indels    0;  Gaps    0;

Qy         13 TGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGCCCCAGCCGCCTC 72
              ||| |  |  ||||| ||  |||    | | ||         ||||  ||||   ||| ||
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Qy         73 ACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAGGAGGTGCTGCAC 132
              || || |||||||| |||  |||||| |||  ||      || |||||| |||||||    |
Db        234 ACACCTTACCTGCGGCAGTGCAAGGTCCTGAACCCTGATGATGAGGAGCAGGTGCTCAGC 293

Qy        133 AGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGATTTGCTGAAGACT 192
                ||||   ||   || | ||      |   | ||      | |||||  | ||| ||
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Qy        193 CGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCACAACCCTGACGTC 252
              ||  | || ||   | | |||||||| |||||||||| || || || ||||  |  |
Db        354 ACCGGCCACAAGGGCTACGTGGCCTTCCTCGAGAGCCTGGAGCTCTACTACCCGCAGCTG 413

Qy        253 TACACCCTGGTCACCGGGCTGCAG 276
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Db        414 TACAAGAAGGTCACAGGCAAGGAG 437


RESULT 15
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AC   AAH18321;
XX
DT   26-JUN-2001  (first entry)
XX
DE   Human cDNA sequence SEQ ID NO:18327.
XX
KW   Human; primer; detection; diagnosis; antisense therapy; gene therapy; ss.
XX
OS   Homo sapiens.
XX
PN   EP1074617-A2.
XX
PD   07-FEB-2001.
XX
PF   28-JUL-2000; 2000EP-0116126.
XX
PR   29-JUL-1999;   99JP-0248036.
PR   27-AUG-1999;   99JP-0300253.
PR   11-JAN-2000; 2000JP-0118776.
PR   02-MAY-2000; 2000JP-0183767.
PR   09-JUN-2000; 2000JP-0241899.
XX
PA   (HELI-) HELIX RES INST.
XX
PI   Ota T,  Isogai T,  Nishikawa T,  Hayashi K,  Saito K,  Yamamoto J;
PI   Ishii S,  Sugiyama T,  Wakamatsu A,  Nagai K,  Otsuki T;
XX
DR   WPI; 2001-318749/34.
XX
PT   Primer sets for synthesizing polynucleotides, particularly the 5602
PT   full-length cDNAs defined in the specification, and for the detection
PT   and/or diagnosis of the abnormality of the proteins encoded by the
PT   full-length cDNAs -
XX
PS   Claim 8; SEQ ID 18327; 2537pp + CD ROM; English.
XX
CC   The present invention describes primer sets for synthesising 5602
CC   full-length cDNAs defined in the specification. Where a primer set
CC   comprises: (a) an oligo-dT primer and an oligonucleotide complementary
CC   to the complementary strand of a polynucleotide which comprises one of
CC   the 5602 nucleotide sequences defined in the specification, where the
CC   oligonucleotide comprises at least 15 nucleotides; or (b) a combination
CC   of an oligonucleotide comprising a sequence complementary to the
CC   complementary strand of a polynucleotide which comprises a 5'-end
CC   sequence and an oligonucleotide comprising a sequence complementary to a
CC   polynucleotide which comprises a 3'-end sequence, where the
CC   oligonucleotide comprises at least 15 nucleotides and the combination of
CC   the 5'-end sequence/3'-end sequence is selected from those defined in
CC   the specification. The primer sets can be used in antisense therapy and
CC   in gene therapy. The primers are useful for synthesising polynucleotides,
CC   particularly full-length cDNAs. The primers are also useful for the
CC   detection and/or diagnosis of the abnormality of the proteins encoded by
CC   the full-length cDNAs. The primers allow obtaining of the full-length
CC   cDNAs easily without any specialised methods. AAH03166 to AAH13628 and
CC   AAH13633 to AAH18742 represent human cDNA sequences; AAB92446 to
CC   AAB95893 represent human amino acid sequences; and AAH13629 to AAH13632
CC   represent oligonucleotides, all of which are used in the exemplification
CC   of the present invention.
XX
SQ   Sequence 2176 BP; 464 A; 657 C; 734 G; 321 T; 0 other;
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  Query Match           31.9%;  Score 88;  DB 22;  Length 2176;
  Best Local Similarity   58.3%;  Pred. No. 4.5e-10;
  Matches  154;  Conservative    0;  Mismatches  110;  Indels    0;  Gaps    0;

Qy         13 TGGGAGATGATGGAGAGCCACCGCCACAGGATCGTACGCTGCATCTGCCCCAGCCGCCTC 72
              ||| |  |  ||||| ||  |||    | | ||         ||||  ||||   ||| ||
Db        177 TGGAACGTCCTGGAGGGCTTCCGGGTGACGCTCACCTCGGTCATCGACCCCTCACGCATC 236

Qy         73 ACCCCCTACCTGCGCCAGGCCAAGGTGCTGTGCCAGCTGGACGAGGAGGAGGTGCTGCAC 132
              || || |||||||| |||  |||||| |||  ||      || |||||| |||||||   |
Db        237 ACACCTTACCTGCGGCAGTGCAAGGTCCTGAACCCTGATGATGAGGAGCAGGTGCTCAGC 296

Qy        133 AGCCCCCGGCTCACCAACAGCGCCATGCGGGCCGGGCACTTGCTGGATTTGCTGAAGACT 192
                ||||   ||  || | ||     |   |  ||      | |||||  | |||  ||
Db        297 GACCCCAACCTGGTCATCCGCAAACGGAAAGTGGGTGTGCTCCTGGACATCCTGCAGCGG 356

Qy        193 CGAGGGAAGAACGGGGCCATCGCCTTCCTGGAGAGCCTGAAGTTCCACAACCCTGACGTC 252
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Db        357 ACCGGCCACAAGGGCTACGTGGCCTTCCTCGAGAGCCTGGAGCTCTACTACCCGCAGCTG 416

Qy        253 TACACCCTGGTCACCGGGCTGCAG 276
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GenCore version 5.1.6

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SUMMARIES

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1	484	100.0	139	24	ABG76062	Human caspase recr
2	484	100.0	1004	22	AAE07164	Human caspase recr
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4	257	53.1	1147	22	AAU01207	Human caspase recr
5	257	53.1	1147	23	AAG79555	Human CARD-11. Ho
6	257	53.1	1247	24	ABG76061	Human caspase recr
7	237	49.0	1032	22	AAU01206	Human caspase recr
8	237	49.0	1032	23	AAG79554	Human CARD-10. Ho
9	237	49.0	1032	23	AAU73247	Human plakoglobin
10	207	42.8	536	22	AAU01204	Rat caspase recrui
11	207	42.8	536	23	AAG79552	Rat CARD-9. Rattu
12	199	41.1	174	21	AAB41067	Human ORFX ORF831
13	199	41.1	174	23	ABP10782	Human ORFX protein
14	199	41.1	366	22	AAB95617	Human protein sequ
15	199	41.1	366	24	ABG76060	Caspase recruitmen
16	199	41.1	536	22	AAU01205	Human caspase recr
17	199	41.1	536	23	AAG79553	Human CARD-9. Hom
18	93	19.2	237	23	AAU73245	Human plakoglobin
19	77	15.9	233	21	AAY59412	Human CIPER protei
20	74	15.3	233	21	AAY59413	Mouse CIPER protei
21	70	14.5	845	22	ABB62651	Drosophila melanog
22	69	14.3	1416	22	AAU30862	Novel human secret
23	68.5	14.2	497	23	ABB98889	Zinc finger protei
24	68	14.0	385	22	AAM93386	Human polypeptide,
25	68	14.0	468	23	ABG97352	Human CGDD3, INCYT
26	67.5	13.9	2443	22	ABB60521	Drosophila melanog
27	65.5	13.5	409	19	AAW70604	Ankyrin protein fr
28	65.5	13.5	409	19	AAW76772	D. immitis ankyrin
29	65.5	13.5	409	21	AAB11585	D. immitis ankyrin
30	65.5	13.5	409	23	AAO21364	Ankyrin protein se
31	65.5	13.5	422	21	AAB11617	D. immitis ankyrin
32	65.5	13.5	422	23	AAO21396	Ankyrin protein se
33	65.5	13.5	1745	19	AAW70608	Full length ankyri
34	65.5	13.5	1745	19	AAW76776	D. immitis ankyrin
35	65.5	13.5	1745	21	AAB11589	D. immitis ankyrin
36	65.5	13.5	1745	23	AAO21368	Ankyrin protein se
37	65	13.4	639	22	ABB65465	Drosophila melanog
38	65	13.4	669	23	ABB77378	Rice acyl CoA oxid
39	65	13.4	676	22	ABB59964	Drosophila melanog
40	65	13.4	676	22	ABB66818	Drosophila melanog
41	65	13.4	1266	23	AAE22544	CTA1-OVA-DD fusion
42	64	13.2	221	24	ABR47523	Breast cancer asso
43	64	13.2	412	22	AAM93214	Human polypeptide,
44	63.5	13.1	71	23	ABP31924	Human ORF897 prote
45	63.5	13.1	454	24	ABR41293	Human DITHP intrac

ALIGNMENTS

RESULT 1
ABG76062
ID ABG76062 standard; protein; 139 AA.
XX
AC ABG76062;
XX
DT 09-MAY-2003 (first entry)
XX
DE Human caspase recruitment domain containing protein, CARD-12X.
XX
KW CARD; caspase recruitment domain; apoptosis; cell adhesion; inflammation;
KW cytokine receptor signalling; cancer; glioma; carcinoma; adenocarcinoma;
KW CARD-containing polypeptide associated disorder; sarcoma; melanoma;
KW hamartoma; leukaemia; lymphoma; keratinocyte hyperplasia; neoplasia;
KW keloid; benign prostatic hypertrophy; inflammatory hyperplasia; fibrosis;
KW restenosis; allergy; arthritis; lupus; Sjogren's syndrome; sepsis; human;
KW Crohn's disease; ulcerative colitis; graft versus host disease; stroke;
KW abnormal cell death disease; myocardial infarction; heart failure;
KW neurodegenerative disease; Parkinson's disease; Alzheimer's disease; HIV;
KW CARD-12X; caspase activator; caspase inhibitor.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Domain 16..107
FT /label= CARD
FT /note= "Caspase recruitment domain. Specifically
FT claimed in claim 12"
FT Misc-difference 139
FT /label= Unknown
FT /note= "Encoded by GNN"
XX

PN US2002164703-A1.
XX
PD 07-NOV-2002.
XX
PF 19-DEC-2001; 2001US-0032159.
XX
PR 21-DEC-2000; 2000US-257457P.
XX
PA (PAWL/) PAWLOWSKI K.
PA (REED/) REED J C.
PA (GODZ/) GODZIK A.
XX
PI Pawlowski K, Reed JC, Godzik A;
XX
DR WPI; 2003-288137/28.
DR N-PSDB; ABX11431.
XX
PT New isolated CARD-containing nucleic acids, useful for the diagnosis
PT and treatment of disorders with aberrant expression or activity of the
PT CARD-containing polypeptide, such as cancer, stroke, arthritis, heart
PT failure and AIDS -
XX
PS Claim 11; Fig 3; 34pp; English.
XX
CC The invention relates to an isolated nucleic acid molecule encoding a
CC caspase recruitment domain (CARD) containing polypeptide. CARD containing
CC polypeptides are involved in apoptosis (as caspase activators and caspase
CC inhibitors), cell adhesion, inflammation and cytokine receptor
CC signalling. The methods and compositions of the present invention are
CC useful for the diagnosis and treatment of disorders associated with the
CC aberrant expression or activity of the CARD containing polypeptide such
CC as cancer, glioma, carcinoma, adenocarcinoma, sarcoma, melanoma, keloid,
CC hamartoma, leukaemia, lymphoma, keratinocyte hyperplasia, neoplasia,
CC benign prostatic hypertrophy, inflammatory hyperplasia, fibrosis,
CC restenosis, allergies, inflammatory diseases such as arthritis, lupus,
CC Sjogren's syndrome, Crohn's disease, ulcerative colitis, graft versus
CC host disease, sepsis, abnormal cell death diseases such as stroke,
CC myocardial infarction, heart failure, neurodegenerative diseases like
CC Parkinson's disease and Alzheimer's disease, and HIV infection. The
CC present sequence represents the amino acid sequence of the human
CC caspase recruitment domain containing protein, CARD-12X.
XX
SQ Sequence 139 AA;

Query Match 100.0%; Score 484; DB 24; Length 139;
Best Local Similarity 100.0%; Pred. No. 3.2e-57;
Matches 92; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 EETLWEMMESHRHRIVRCICPSRLTPYLRQAKVLCQLDEEEVLHSPRLTNSAMRAGHLLD 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         16 EETLWEMMESHRHRIVRCICPSRLTPYLRQAKVLCQLDEEEVLHSPRLTNSAMRAGHLLD 75

Qy         61 LLKTRGKNGAIAFLESLKFHNPDVYTLVTGLQ 92
              ||||||||||||||||||||||||||||||||
Db         76 LLKTRGKNGAIAFLESLKFHNPDVYTLVTGLQ 107
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RESULT 2
AAE07164
ID AAE07164 standard; Protein; 1004 AA.
XX
AC AAE07164;
XX
DT 06-NOV-2001 (first entry)
XX
DE Human caspase recruitment domain-14 (CARD-14).
XX
KW Human; caspase recruitment domain-14; CARD-14; chromosome 17;
KW nuclear factor-kappa B; NF-kB; cell growth; cell death; cancer; therapy;
KW autoimmune disorder; systemic lupus erythematosus; neurological disorder;
KW Alzheimer's disease; Parkinson's disease; inflammatory disorder; anaemia;
KW haematological disorder; myelodysplastic syndrome; myocardial infarction;
KW stroke; immune disorder; Crohn's disease; allergic rhinitis; infection;
KW cell signalling disorder; cytostatic; immunosuppressive; nootropic;
KW neuroprotective; antiviral; antibacterial.
XX
OS Homo sapiens.
XX

FH	Key	Location/Qualifiers
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FT		phosphorylation site"
FT	Domain	10..116
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FT	Modified-site	12..15
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FT	Modified-site	25..27
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FT	Modified-site	60..62
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FT	Modified-site	117..122
FT		/note= "N-myristoylation site"
FT	Modified-site	121..123
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FT	Domain	126..420
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FT	Modified-site	366..368
FT		/note= "Protein kinase C phosphorylation site"
FT	Modified-site	366..369
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FT	Modified-site	384..386
FT		/note= "Protein kinase C phosphorylation site"
FT	Region	385..406
FT		/note= "Leucine zipper pattern"

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FT   Modified-site   449..452
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FT   Modified-site   470..472
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FT   Domain          568..660
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FT   Modified-site   674..677
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FT   Domain          676..745
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FT   Modified-site   714..719
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FT   Modified-site   725..727
FT                   /note= "Protein kinase C phosphorylation site"
FT   Modified-site   725..728
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FT   Modified-site   737..740
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FT                   phosphorylation site"
FT   Peptide         785..793
FT                   /note= "Peroxisomal targetting signal"
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FT                   /note= "Protein kinase C phosphorylation site"
FT   Region          870..872
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FT   Modified-site   893..896
FT                   /note= "Casein kinase II phosphorylation site"
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FT                   /note= "Peroxisomal targetting signal"
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FT   Modified-site   1002..1004
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PN   WO200159065-A2.
XX
PD   16-AUG-2001.
XX
PF   22-JAN-2001; 2001WO-US02087.
XX
PR   09-FEB-2000; 2000US-0181159.
XX
PA   (MILL-) MILLENNIUM PHARM INC.
XX
PI   Bertin J;
XX
DR   WPI; 2001-497073/54.
DR   N-PSDB; AAD13447.
XX
PT   An isolated caspase recruitment domain polypeptide useful for
PT   regulating growth and cell death and useful for the treatment of cancer
PT   -
XX
PS   Claim 1; Fig 1A-1E; 109pp; English.
XX
CC   The present sequence is human caspase recruitment domain-14 (CARD-14).
CC   The CARD-14 gene is located on chromosome 17. The CARD-14 is used for
CC   the detection of modulators that modulates the ability of CARD-14 to
CC   bind to Bcl-10 and stimulates phosphorylation of Bcl-10 or activation
CC   of nuclear factor-kappa B (NF-kB). The CARD-14 is useful for regulating
CC   growth and cell death and useful for the treatment of cancer. It is
CC   also useful for the treatment of autoimmune disorders (e.g., systemic
CC   lupus erythematosus), neurological disorders e.g., Alzheimer's and
CC   Parkinson's disease, inflammatory disorders, haematological disorders
CC   (e.g., anaemia, myelodysplastic syndromes), myocardial infarctions,
CC   strokes, immune disorders (e.g., Crohn's disease, allergic rhinitis),
CC   cell signalling disorders and certain viral and bacterial infections.
XX
SQ   Sequence   1004 AA;

  Query Match            100.0%;  Score 484;  DB 22;  Length 1004;
  Best Local Similarity  100.0%;  Pred. No. 4.9e-56;
  Matches   92;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EETLWEMMESHRHRIVRCICPSRLTPYLRQAKVLCQLDEEEVLHSPRLTNSAMRAGHLLD 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         16 EETLWEMMESHRHRIVRCICPSRLTPYLRQAKVLCQLDEEEVLHSPRLTNSAMRAGHLLD 75

Qy         61 LLKTRGKNGAIAFLESLKFHNPDVYTLVTGLQ 92
              ||||||||||||||||||||||||||||||||
Db         76 LLKTRGKNGAIAFLESLKFHNPDVYTLVTGLQ 107


RESULT 3
AAE07165
ID   AAE07165 standard; Protein; 1139 AA.
XX
AC   AAE07165;
XX
DT   06-NOV-2001  (first entry)
XX
DE   Human predicted caspase recruitment domain-14 (CARD-14).
XX
KW   Human; caspase recruitment domain-14; CARD-14; chromosome 17;
KW   nuclear factor-kappa B; NF-kB; cell growth; cell death; cancer; therapy;
KW   autoimmune disorder; systemic lupus erythematosus; neurological disorder;
KW   Alzheimer's disease; Parkinson's disease; inflammatory disorder; anaemia;
KW   haematological disorder; myelodysplastic syndrome; myocardial infarction;
KW   stroke; immune disorder; Crohn's disease; allergic rhinitis; infection;
KW   cell signalling disorder; cytostatic; immunosuppressive; nootropic;
KW   neuroprotective; antiviral; antibacterial.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 700
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FT                   /note= "Encoded by TGG"
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PN   WO200159065-A2.
XX
PD   16-AUG-2001.
XX
PF   22-JAN-2001; 2001WO-US02087.
XX
PR   09-FEB-2000; 2000US-0181159.
XX
PA   (MILL-) MILLENNIUM PHARM INC.
XX
PI   Bertin J;
XX
DR   WPI; 2001-497073/54.
DR   N-PSDB; AAD13448.
XX
PT   An isolated caspase recruitment domain polypeptide useful for
PT   regulating growth and cell death and useful for the treatment of cancer
PT   -
XX
PS   Disclosure; Fig 2A-2C; 109pp; English.
XX
CC   The present sequence is predicted human caspase recruitment domain-14
CC   (CARD-14). The CARD-14 gene is located on chromosome 17. The CARD-14 is
CC   used for the detection of modulators that modulates the ability of
CC   CARD-14 to bind to Bcl-10 and stimulates phosphorylation of Bcl-10 or
CC   activation of nuclear factor-kappa B (NF-kB). The CARD-14 is useful for
CC   regulating growth and cell death and useful for the treatment of cancer.
CC   It is also useful for the treatment of autoimmune disorders (e.g.,
CC   systemic lupus erythematosus), neurological disorders e.g., Alzheimer's
CC   and Parkinson's disease, inflammatory disorders, haematological disorders
CC   (e.g., anaemia, myelodysplastic syndromes), myocardial infarctions,
CC   strokes, immune disorders (e.g., Crohn's disease, allergic rhinitis),
CC   cell signalling disorders and certain viral and bacterial infections.
XX
SQ   Sequence   1139 AA;

  Query Match             100.0%;  Score 484;  DB 22;  Length 1139;
  Best Local Similarity   100.0%;  Pred. No. 5.8e-56;
  Matches   92;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 EETLWEMMESHRHRIVRCICPSRLTPYLRQAKVLCQLDEEEVLHSPRLTNSAMRAGHLLD 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         16 EETLWEMMESHRHRIVRCICPSRLTPYLRQAKVLCQLDEEEVLHSPRLTNSAMRAGHLLD 75

Qy         61 LLKTRGKNGAIAFLESLKFHNPDVYTLVTGLQ 92
              ||||||||||||||||||||||||||||||||
Db         76 LLKTRGKNGAIAFLESLKFHNPDVYTLVTGLQ 107


RESULT 4
AAU01207
ID   AAU01207 standard; Protein; 1147 AA.
XX
AC   AAU01207;
XX
DT   12-SEP-2001  (first entry)
XX
DE   Human caspase recruitment domain, CARD-11 polypeptide.
XX
KW   Human; caspase recruitment domain; CARD-11; Bcl-10; NF-kappaB;
KW   apoptosis; hyperproliferative disorder; autoimmune; neurological;
KW   inflammatory disorder; viral infection; stress-related response.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Domain          6..112
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FT                   /note= "Casein kinase II phosphorylation site"
FT   Modified-site   100..102
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FT   Modified-site   100..103
FT                   /note= "Casein kinase II phosphorylation site"
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FT                   /note= "cAMP- and cGMP-dependent protein kinase
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FT                   /note= "Casein kinase II phosphorylation site"
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FT   Modified-site   175..183
FT                   /note= "Tyrosine kinase phosphorylation site"
FT   Modified-site   182..185
FT                   /note= "Casein kinase II phosphorylation site"
FT   Modified-site   189..195
FT                   /note= "Tyrosine kinase phosphorylation site"
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FT   Modified-site   243..245
FT                   /note= "Protein kinase C phosphorylation site"
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FT                   /note= "Amidation site"
FT   Modified-site   286..289
FT                   /note= "Casein kinase II phosphorylation site"
FT   Modified-site   290..292
FT                   /note= "Protein kinase C phosphorylation site"
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FT                   /note= "Casein kinase II phosphorylation site"
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FT                   /note= "cAMP- and cGMP-dependent protein kinase
FT                        phosphorylation site"
FT   Modified-site   459..461
FT                   /note= "Protein kinase C phosphorylation site"
FT   Modified-site   471..474
FT                   /note= "Casein kinase II phosphorylation site"
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FT   Modified-site   476..479
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FT                        phosphorylation site"
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FT                        phosphorylation site"
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FT   Domain          635..1147
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FT   Modified-site   687..689
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FT   Modified-site   692..695
FT                   /note= "Casein kinase II phosphorylation site"
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GenCore version 5.1.6

OM nucleic - nucleic search, using sw model

Run on: February 17, 2004, 21:36:16 ; Search time 2065.14 Seconds
(without alignments)
8260.598 Million cell updates/sec

Title: US-10-032-159A-15
Perfect score: 417
Sequence: 1 atgggggaactgtgccgcag.....ggctcctggtaaccccagnn 417

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 2888711 seqs, 20454813386 residues

Total number of hits satisfying chosen parameters: 5777422

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : GenEmbl:*
1: gb_ba:*
2: gb_htg:*
3: gb_in:*
4: gb_om:*
5: gb_ov:*
6: gb_pat:*
7: gb_ph:*
8: gb_pl:*
9: gb_pr:*
10: gb_ro:*
11: gb_sts:*
12: gb_sy:*
13: gb_un:*
14: gb_vi:*
15: em_ba:*
16: em_fun:*
17: em_hum:*
18: em_in:*
19: em_mu:*
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21: em_or:*
22: em_ov:*
23: em_pat:*
24: em_ph:*
25: em_pl:*
26: em_ro:*
27: em_sts:*
28: em_un:*
29: em_vi:*
30: em_htg_hum:*
31: em_htg_inv:*
32: em_htg_other:*
33: em_htg_mus:*
34: em_htg_pln:*
35: em_htg_rod:*
36: em_htg_mam:*
37: em_htg_vrt:*
38: em_sy:*
39: em_htgo_hum:*
40: em_htgo_mus:*
41: em_htgo_other:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	351	84.2	2621	9	BC018142	BC018142 Homo sapi
2	351	84.2	3682	9	AY032927	AY032927 Homo sapi
3	351	84.2	3766	9	AK091123	AK091123 Homo sapi
4	351	84.2	3931	9	AF322642	AF322642 Homo sapi
5	264.6	63.5	3772	10	AF363457	AF363457 Mus muscu
6	264.6	63.5	3995	10	BC029102	BC029102 Mus muscu
7	212	50.8	55173	2	AC132816	AC132816 Homo sapi
8	212	50.8	144000	9	AC123764	AC123764 Homo sapi
c 9	212	50.8	182016	9	AC087741	AC087741 Homo sapi
10	212	50.8	187865	2	AC015559	AC015559 Homo sapi
11	212	50.8	207822	2	AC109321	AC109321 Homo sapi
c 12	205	49.2	55173	2	AC132816	AC132816 Homo sapi
13	188.8	45.3	74301	2	AC137736	AC137736 Homo sapi
c 14	156	37.4	65608	2	AC132197	AC132197 Homo sapi
15	154.6	37.1	244653	10	AL645911	AL645911 Mouse DNA
16	117.8	28.2	3096	6	AX154570	AX154570 Sequence
17	117.8	28.2	3908	9	AY032928	AY032928 Homo sapi
18	117.8	28.2	3948	6	AX300499	AX300499 Sequence
19	117.8	28.2	3949	6	AX154568	AX154568 Sequence
20	117.8	28.2	3949	9	AY028896	AY028896 Homo sapi
21	113	27.1	4085	10	AY135367	AY135367 Mus muscu
22	110.2	26.4	4438	10	AF363456	AF363456 Mus muscu
23	104	24.9	3441	6	AX154573	AX154573 Sequence
24	104	24.9	3955	9	AF352576	AF352576 Homo sapi
25	104	24.9	4276	6	AX154571	AX154571 Sequence
26	104	24.9	4276	9	AF322641	AF322641 Homo sapi
27	104	24.9	4293	9	AK074049	AK074049 Homo sapi
28	94.4	22.6	765	6	BD150612	BD150612 Primer fo
29	94.4	22.6	1608	6	AX154567	AX154567 Sequence
30	94.4	22.6	2098	6	AX154565	AX154565 Sequence
31	94.4	22.6	2132	9	AF311287	AF311287 Homo sapi
32	94.4	22.6	2176	6	BD160313	BD160313 Primer fo
33	94.4	22.6	2176	9	AK024001	AK024001 Homo sapi
34	92.8	22.3	1836	9	BC008877	BC008877 Homo sapi
35	87.6	21.0	3164	10	BC004692	BC004692 Mus muscu
36	85.2	20.4	1608	6	AX154564	AX154564 Sequence
37	85.2	20.4	1879	6	AX154562	AX154562 Sequence
38	85.2	20.4	1879	10	AF311288	AF311288 Rattus no
c 39	74.8	17.9	96256	9	HS1177I5	AL022315 Human DNA
c 40	74	17.7	239392	2	AC115417	AC115417 Rattus no
41	74	17.7	245032	2	AC109749	AC109749 Rattus no
c 42	70.8	17.0	187446	2	AC124374	AC124374 Mus muscu
43	70.8	17.0	225027	2	AC131725	AC131725 Mus muscu
44	69.2	16.6	161985	10	AL592169	AL592169 Mouse DNA
45	69.2	16.6	217819	2	AC026386	AC026386 Mus muscu

ALIGNMENTS

RESULT 1
BC018142
LOCUS BC018142 2621 bp mRNA linear PRI 06-DEC-2001
DEFINITION Homo sapiens, Similar to caspase recruitment domain protein 14, clone MGC:9539 IMAGE:3847282, mRNA, complete cds.
ACCESSION BC018142
VERSION BC018142.1 GI:17390314
KEYWORDS MGC.
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE 1 (bases 1 to 2621)
AUTHORS Strausberg,R.
TITLE Direct Submission